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NATIONAL ASSOCIATION FOR THE PROMOTION OF TECHNICAL AND SECONDARY EDUCATION.

OFFICES: 10, QUEEN ANNE'S GATE, WESTMINSTER, LONDON, S.W.

President: THE DUKE OF DEVONSHIRE, K.G.

Treasurer: THE LORD AVEBURY.

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THE Association for the Promotion of Technical (including Commercial and Agricultural) Education aims at encouraging those educational reforms which will improve the capacity, in a broad sense, of all those upon whom our industries depend. Its object is not to interfere with the teaching of trades in workshops, or with the industrial and commercial training in the manufactory and in the warehouse. It desires (1) to develop increased general dexterity of hand and eye among the young, which may be especially useful to those who have to earn their own livelihood, and at the same time improve rather than hinder their general education; (2) to bring about more widespread and thorough knowledge of those principles of science and art which underlie much of the industrial work of the nation; (3) to encourage better secondary instruction generally, which will include more effective teaching of foreign languages and science for those who have to guide our commercial relations abroad, and to develop our industries at home. With these and similar objects in view, the Association desires to bring about an improved organisation of the Industrial Education of both sexes in accordance with the needs of various districts. One of its main purposes is to stimulate public opinion by encouraging consultation and discussion between the representatives of various localities on the subject generally, and on any legislation that may be proposed, by conferences and meetings in various towns and villages; and by the diffusion of information in a cheap and popular form. The Association wishes where it can do so, to make better known the work of existing institutions, and to act in harmony with all those who are interested in bringing about more effective progress in a matter of the utmost importance to the country.

The Association does not pledge itself in detail to all the opinions expressed or quoted in its publications, but aims at providing by their means information worthy of careful consideration.

MAR 17 1904

I.—EDITORIAL NOTES.

We publish on pp. 81-5 the outcome of the proceedings of the General Purposes Committee of the London County Council in the matter of the Education (London) Act, 1903. The text of this Act is brief; but, having regard to its relation to the Education Act of 1902, there has been considerable anxiety as to how the proceedings of the General Purposes Committee would shape themselves. It was felt that there should not be any delay in the beginning of a great educational movement in the Metropolis, and we venture, therefore, to congratulate the London County Council upon the progress they have made in a direction which may enable them to grapple with the educational needs of London upon the appointed day named in the Act—*i.e.*, the 1st May, 1904. But, when we consider as to whether the scheme put forward is the best possible in all the circumstances of the case, we find ourselves confronted by issues of much gravity. The exceptional conditions of London are apparent to all those who reflect upon the diverse and yet concentrated population, the existing system of local government and the manifold and varied industries and occupations which focus themselves within the county area. These conditions represent a remarkable complexity of needs, and call for the elaboration of a scheme which shall be so securely founded as to promote the co-ordination and development of the vast resources of the Metropolis.

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We believe that educationalists generally are not anxious about the representation on the new Education Committee of 'interests' —whatever that word may mean to those who have drawn it into this simple educational issue—neither do they plead for the presence of experts *qua* experts. The aim of educational reformers is rather to secure the appointment by the Council (to quote the Principal Act) "of persons of experience in education, and of "persons acquainted with the needs of the various kinds of "schools in the area for which the Council acts." If we interpret these words aright, we would say that they cast upon the Local Education Authority one of the most important functions to be discharged by that Authority. It is in this connection that we look for the elimination of those persons who do not stand for the

advancement of education itself; and, in this regard, it is surely possible to find cultured men and women who, though not members of the Council and sometimes unhappily designated as 'outsiders,' would be of very real service in the administrative work of the Council. To look to members of the Council alone for all the varied knowledge and experience required would seem to be an unfruitful enterprise—notwithstanding the acknowledged educational and administrative *acumen* of many members of that body; while always to inflict the hardships attending popular election upon an earnest thinker and worker in the domain of education would almost certainly deprive the Council of invaluable service. We do not overlook the fact that it is proposed to co-opt five *women* and five *members* of the London School Board—the last-named five to retire after the first Education Committee have concluded their labours; but neither of these groups will "come "in through the front door of the Council and by direct election" —women being forbidden that entrance by statute.

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The London County Council have rendered such conspicuous service to the cause of education that we confess we read their proposal for the constitution of their Education Committee with some amazement and concern; and we have been wondering whether there has or has not been some misconception of the Council's duties and obligations to London under the Act of last year. It is to be hoped that nothing will occur to prevent the Act from coming into operation on the appointed day. Nevertheless it will be a public misfortune if some satisfactory settlement (*e.g.*, by the assignment of a fair representation to London University) cannot be promptly effected. There exists a feeling of unrest which does not make for the harmonious extension of means for the systematic organisation of education in London. We would, therefore, urge the London County Council to hold fast to the high reputation they possess through the splendid work of the Technical Education Board, and not to lose touch with those educational forces which have so largely contributed to the successes of the past.

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Since the above was written, and just as we go to press, we notice that among the important bodies who are protesting against the draft scheme of the London County Council are :—(1) the Senate of the University of London, who have adopted the

following resolution: "That the Board of Education be informed "that the Senate, while in no way wishing to cause any postpone- "ment of the appointed day, think it desirable, in the interests of "education in London, that the University should be closely "associated with the Education Committee to be appointed by "the London County Council, and that persons experienced in "education should be members of that Committee"—and (2) the Trustees of the London Parochial Charities who have directed: "That a letter be written to the Board of "Education calling attention to the scheme propounded "by the London County Council for the constitution of the "London Education Committee from which all representation of "the Central Governing Body of the City Parochial Foundation is "omitted, and pointing out the position of the Central Governing "Body with respect to the conduct and administration of the "several polytechnics and their large contributions in respect "of capital and income, obligatory and discretionary, to such "polytechnics, and asking the Board to secure the adequate "representation on the said London Education Committee of the "Central Governing Body as directly responsible under Schemes "approved by Her late Majesty in Council for so many important "institutions for the promotion of secondary and technical "education in London." It is such declarations as these that must command the most careful consideration if there is to be built up in London an educational edifice worthy of the chief city of the Empire.

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The question of the training of teachers and the several matters relating thereto are the most pressing for treatment at the present time. Following upon the general review of the whole problem, published in our last number, we are pleased to be able to devote a separate Section (pp. 18-46) to the preliminary proposals actually under consideration by certain Local Education Authorities (*i.e.*, Bedfordshire, Staffordshire and Manchester). It will be seen that these Authorities cover rural and urban counties and a large industrial centre of population. We have unfortunately been precluded, by considerations of space, from discussing the Regulations of, and the excellent suggestions framed by, the Board of Education in regard to the training of pupil-teachers and others. But we think that the general aim and spirit of these may be clearly gathered from the reports and proposals of the Local Education Authorities themselves. There can be no doubt

that the success of their task, in putting into force the ideals of the Central Authority, depends entirely upon the question of finance. From the very outset Local Education Authorities should feel unhampered by any stringent limitations of money if this important work is to be done well. It is quite evident that the consensus of opinion declares that such freedom does not exist at present. We believe, however, that no stone will be left unturned in order to produce a satisfactory solution of this truly serious difficulty.

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It is when the problem of the training of teachers is considered in some detail that the urgency of its financial side is immediately discerned. Meanwhile, a few of the more important matters that have come before us may be urged, and we recapitulate them here as follows :—

(1) The training of pupil-teachers should be proportionate to the number of children in the schools;

(2) The claims and needs of all classes of existing teachers should be duly considered with a view to an improvement of their position without unnecessary hardship;

(3) To secure a better class of teachers, their general education should be given in secondary schools up to at least 15 years of age, when specialisation and practice of teaching (half-time) might commence;

(4) To obtain, in addition to Pupil-Teachers' Centres, a large increase of pupils in secondary schools, by the award of special scholarships;

(5) To promote joint action between Local Education Authorities, particularly in the establishment of additional training colleges, but to avoid immediate heavy capital expenditure, in order to save time in commencing training and to give Authorities experience in the working of schemes.

In connection with (3) and (4), other matters will require very deliberate attention, such as the payment of better salaries to assistant-masters and mistresses in secondary schools, and the position of private schools in the allocation of the scholarships.

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Some very pertinent conclusions may be safely drawn from the results of the preliminary inquiries into the condition of secondary schools in Shropshire and Worcestershire as they appear in

Section III. (pp. 49-71) of our present issue. The report upon each of these counties substantiates, to a very large degree, the fearless expressions (to which we referred in our last issue) made by Mr. J. W. Headlam in his special report to the Board of Education in regard to the nature of the teaching given in secondary schools, particularly in connection with classical education. The report by Mr. W. H. Pendlebury, M.A., dealing with Shropshire, is especially interesting and valuable on account of its completeness, both with reference to the internal organisation of the schools and to their general position in a properly co-ordinated scheme of education. It is somewhat difficult to know which of the facts revealed by the two inquiries should be of the chiefest concern to County Education Committees. But it would seem that among those of the most general importance are—(1) that the numbers of both boys and girls receiving secondary education is considerably below the averages authentically estimated for the whole country (in fact--in Shropshire the number falls quite one-third below the *actual* average for England); (2) that there is a great scarcity of public secondary schools for girls, and that the extension of facilities for girls' education, as a whole, requires close attention; (3) that the continuance of substantial capital and maintenance grants from County Councils to the schools is very essential to their efficiency, as well as a judicious raising of the tuition fees.

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Many questions as to the position of private schools must also be carefully considered in undertaking the task of establishing complete schemes for secondary education in administrative counties. The facts in regard to these schools brought out by Mr. Pendlebury's inquiry in Salop would indicate that the action of Education Committees must be guided by some such desiderata as the following:—(1) that separate accommodation for teaching purposes in private schools (especially for girls) is very deficient; (2) that science instruction is little taught, and on its practical side scarcely at all; (3) that a large proportion of the teaching staff is qualified by experience only; and (4) that the schools do not act, to any great extent, as channels between the elementary schools and places of higher education. This last-named deficiency, at least, is one, however, that would probably be rectified automatically by the participation of private schools in the operation of county scholarship schemes. But there can be no doubt that Local Education Authorities will, in their plans for

secondary education, adopt a generous policy towards all efficient private schools and to others that can be brought up to the standard of efficiency. A case in point is already furnished by the Bedfordshire Education Committee, who have placed private schools upon the same basis in all respects as regards local aid as public secondary schools (see pp. 131-3). We may remark here that this Committee are one of the first in the field to prepare a comprehensive scheme for higher education. We deal with this scheme at length in our Review Section on pp. 125-36, inasmuch as it contains valuable suggestions for other Authorities administering rural areas.

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The recent appointment of Mr. W. C. Fletcher, M.A., late Head-master of Liverpool Institute, to the new post of Chief Inspector of Secondary Schools shows that the Board of Education are fully alive to the importance of promoting the efficiency of these schools in view of the general co-ordination of all forms of education. Mr. Fletcher will, we understand, be assisted by a carefully chosen staff of inspectors who have had practical experience in connection with secondary schools. These appointments should by no means minimise the pressing nature of the work falling to the inspectors appointed by Local Education Authorities, but there should rather be much coalition of aim and purpose in the methods pursued by the two sets of officials. We trust also that, between the Central Authority on the one hand and the Local Authorities on the other hand, the inspection will be thoroughly comprehensive, and deal with the schools from the administrative and sanitary sides (the latter being all important) as well as from the educational side. So far as the relations of the Local Authorities with private schools are concerned, it would, perhaps, be wise for the former to bear the whole cost (and not part, as is proposed by some) of the inspection, in the first instance at any rate, of schools desiring recognition—a course advocated by the Royal Commission on Secondary Education—particularly if the schools are to be debarred from receiving direct grants.

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A fully up-to-date list of the chief educational officials appointed under the Education Act, 1902, is published in Section V. (pp. 86-99), there being a considerable demand for the information. The particulars we have been able to compile

now embrace 48 of the 50 English counties (the Isles of Scilly being regarded as a separate county), 64 of the 66 English county boroughs and ten of the 16 Welsh counties and county boroughs. The names of the ten counties and county boroughs where appointments have not yet been made are—Anglesea, Bury, Cardiff, Durham, London, Montgomeryshire, Newport (Mon.), Pembrokeshire, Radnorshire and West Ham. We would still solicit early notification of any revisions or additions that may be required to make the list complete.

* * * * * *

The usual annual meetings and conferences of the various educational associations, held at this period of the year, have been of exceptional interest, and we regret that pressure upon our space precludes us from noticing many of the practical points made during the discussions. Among the chief subjects which received special attention were the training of pupil-teachers, the systematic survey of schools other than elementary, joint arrangements for complete and graduated systems of scholarships, the transition of pupils from one type of school to another, the correlation of the curricula of different schools, the overcrowding of the curricula and specialisation in girls' secondary schools, the co-education of girls and boys—these and many other questions all demand much deliberation in planning the future organisation of schools. In Section VI. (pp. 100-110) we publish, however, some account of the annual meetings of the Associations of Directors and Secretaries for Education and of Technical Institutions, at which it will be seen very valuable addresses were given respectively by Mr. Percy Elford, who dwelt upon the important claims of higher education, and by the Right Hon. Sir John E. Gorst, M.P., who insisted upon the adoption of more common-sense methods in the training of the younger children in elementary schools. With the advent of these annual meetings two earnest workers will disappear from the prominent positions they have occupied. We refer to the retirement of Dr. R. P. Scott and Professor J. Wertheimer as the Hon. Secretaries of the Associations of Head Masters and of Technical Institutions respectively. The cause of technical and secondary education owes much to the indefatigable services of these two gentlemen; but there is no doubt that their work will be ably maintained and carried forward by their respective successors, Dr. J. D. McClure (of Mill Hill) and Principal S. H. Wells (of Battersea).

It is much to be regretted that the Plumbers' Company continue to identify themselves with a movement which does not command the support of educated opinion throughout the country. The energy and funds devoted to the Plumbers' Registration movement would constitute a sound investment if they were so applied as to secure the co-operation of all the Local Education Authorities, whose support is essential to the success of any scheme which may be promulgated by the Company. The announcement that the Warden of the Plumbers' Company presided over a conference between the Company, the representatives of the larger water authorities of the country and the Royal Institute of British Architects is interesting, if only to place upon record a somewhat fundamental divergence of view respecting the Registration movement; while the further announcement that "the Plumbers' "Registration Bill that passed the House of Lords in 1902 but "failed, in the hands of a private member, to pass the House of "Commons, has the full approval of the Local Government Board" has received its quietus in a letter addressed to the Secretary of the County Councils Association (Mr. G. Montagu Harris) by an Assistant Secretary of the Local Government Board (Mr. Noel T. Kershaw), who declares that the statement "was not made on the authority of the Board." The National Association for the Promotion of Technical and Secondary Education have been extremely careful in their relations to this problem, and they occupied the position of moderators in the contentious discussions which have taken place. Nevertheless, it appears to be impossible to construct the right machinery without the cordial approval of the Local Education Authorities and other bodies closely associated with the supply of education of this character. The measure already foreshadowed would doubtless meet the fate of all previous attempts to obtain the sanction of the Legislature.

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According to the last "Statement of Schemes for the formation of Education Committees" issued by the Board of Education as a Parliamentary Paper, Cd. 1870, which covers the period up to the end of November, 1903, there are now only four Authorities who have not yet submitted schemes to the Board, namely, the county of Cardigan, the boroughs of Durham and Yeovil and the urban district of Abertillery. All but 13 of the 330 schemes received have been approved by the Board, and these 13, which are in course of consideration or of publication, are :—*counties* (3)—

Anglesey, Durham, Monmouth ; *county boroughs* (4)—Bradford (*now* approved), Cardiff, Newport, Swansea ; *boroughs* (3)—Bridgwater (*now* approved), Ossett, Southport (*now* approved) ; *urban districts* (3)—Edmonton, Ebbw Vale, Merthyr Tydfil. In our last volume (July, 1903, p. 277) we gave a carefully-prepared summary of all the five Statements then issued, which dealt with the schemes of 271 Authorities. The following *prêcis* includes, in addition, particulars of the schemes of 61 other Authorities dealt with in the 6th Statement of the Board.

Local Education Authorities.	Education Committees.			
	Number of Members.	Number of Members.	Councillors.	Non-Councillors.	Women
58 Counties*.....	4,112	2,216	1,554	662 including	128
65 County Boroughs	3,324	1,881	1,220	661 ,,	115
129 Boroughs over 10,000 population..	3,383	2,529	1,614	915 ,,	196
58 Urban Districts over 20,000 population ..	1,019†	1,110†	699	411 ,,	74
22 minor Authorities with concurrent powers under Section III. ..	386	348	196	152 ,,	33
Totals (332 Authorities) ..	12,224	8,084	5,283	2,801	546

* * * * * *

As the Education Act, 1902, is now almost completely being put into actual operation throughout the whole country, it is possible and not premature to draw attention to certain facts which our summaries of the Statements of the Board of Education were designed to bring out. These relate chiefly to two important points in connection with the constitution of Education Committees, namely (1) the proportion of municipal members appointed, and (2) the extent to which women have been included by co-optation. With regard to (1), the summaries show that in the administrative counties the Education Committees are composed of the largest proportion of municipal members or members of the Local Authorities ; these members stand to non-Councillors in the ratio of seven to three. There is thus a great majority of representatives of the Local Authorities upon these Education Committees, and this notwithstanding the option given by Clause 17 (3) (*a*) of the Act, which entitles the *County* Councils to determine whether the persons appointed by them shall or shall

* Excluding London ; but the Isles of Scilly are taken as a separate county.

† In 28 cases the numbers of the members of the Education Committees exceed those of the Local Education Authorities themselves.

not be their own members. Further, it is worthy of notice that the proportion of municipal members on the Committees gradually decreases with the size of the Authorities, until, taking the Minor Authorities, the ratio of Councillors to non-Councillors is found to stand at about eleven to nine respectively.

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With reference to point (2), it would seem that the proportion of women, included by co-optation on the Education Committees, to the total number of members ranges, amongst the different Authorities, from one in every 17 to one in every ten. The largest numbers of women members are found in the boroughs and amongst the Minor Authorities and the smallest numbers in the counties and the county boroughs. In view of the importance of making efficient provision for the education of women and girls, and of the many and varied problems demanding treatment in connection therewith (particularly the question of the secondary education of girls), this sparse representation of women's interests on the Education Committees cannot be deemed satisfactory. The terms of the Act regarding the appointment of a minimum number of women on Education Committees, as explained in the Circulars issued early in the past year by the Board of Education, have been exceeded by 187 of the 332 Local Authorities. Of these, two Local Authorities have included as many as five women on their Committees, three Authorities four, 14 Authorities three, and the remaining 168 Authorities only two each, those 19 appointing the larger numbers of women being chiefly County and County Borough Councils who have given considerable attention to the education of girls in administering the late Technical Instruction Acts, *e.g.* :— Somerset, Hampshire, Manchester and Liverpool.

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We are glad to be able to record the fact that, in spite of the recent decline (now arrested) in the amount of the Residue of the Local Taxation Fund, the aggregate appropriation by English and Welsh County Councils for the various forms of agricultural instruction has slightly increased. A sum of over £88,000 was devoted to these purposes during the year 1901-2, although the loss in the Grant available in the administrative counties was as much as £48,000. We give below a tabular summary of the three Returns, published in the reports of the Board of Agriculture,

which were originally compiled at the suggestion of the Agricultural Education Committee, and which, we trust, will appear annually, if only for purposes of reference. It is evident from the statistics that the schemes of agricultural education under the County Councils are being developed as a whole through the valuable advisory and inspecting work undertaken by the Board; and in this connection it may be noted that an additional inspector has been appointed.

	Total Amounts of Grants.			No. of County Councils making Grants.		
Year:	1899-1900. £	1900-1. £	1901-2. £	1899-1900.	1900-1.	1901-2.
Colleges and Schools	25,616	34,929	29,982	46	49	49
Scholarships and Exhibitions	8,256	9,330	11,169	46	43	48
Local Classes or Lectures for: Horticulture	10,386	9,188	10,790	44	39	46
Dairying	9,696	8,663	11,430	42	37	40
Agriculture	5,997	6,284	5,592	31	31	32
Poultry-keeping.....	2,563	2,530	3,241	35	36	37
Farriery, etc.....	2,490	2,524	3,184	28	25	31
Manual Processes	2,282	3,166	2,784	19	22	18
Bee-keeping	857	1,339	1,275	25	30	34
General and Miscellaneous..	9,003	9,640	8,765	37	39	37
Totals	£77,146	£87,593	£88,212			

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"A Bill to amend the laws relating to education in Scotland has been prepared for your consideration" is the promise made in the King's Speech. These terms are sufficient to cover a measure of much importance, and it is to be hoped that, upon its appearance, the actual provisions will not evoke such opposition as was manifested before the withdrawal of the previous Bill in 1900. If only for the proper reorganisation of higher education, the need of legislation is most urgent, as we have repeatedly shown. In this connection, the Scottish Association for the Promotion of Technical and Secondary Education recently expressed, at their annual meeting in Edinburgh last month, their opinion upon the general provisions which should be embodied in the Bill. It was urged as follows:—

(1) That the areas for the local administration of technical and secondary education should be the several counties and urban areas of Edinburgh (with Leith), Glasgow (with Govan), Aberdeen and Dundee;

(2) That the Local Authorities for the county areas should be the several County Councils, with the addition of representatives of burghs not represented on the Councils;

(3) That the Local Authorities for the urban areas of Aberdeen and Dundee should be the respective Town Councils;

(4) That for higher educational purposes it is desirable that Glasgow should be joined with Govan, and Edinburgh with Leith; that, therefore, special provision should be made for the constitution of the Local Authorities within these two areas;

(5) That the Local Authorities should each appoint an Education Committee for the preparation of schemes of work and for their administration, subject to the approval of the Local Authorities and of the Scotch Education Department;

(6) That not less than two-thirds of the members of each Education Committee should be members of the Local Authority, and the remainder additional members, those additional members to be persons possessing experience in connection with education, especially secondary and technical, and to be nominated for appointment by the Local Authority in such manner and by such bodies (Universities, School Boards, Educational Trusts, etc.) as may be provided for in each case by a scheme of constitution prepared by the Local Authority and approved by the Department;

(7) That the Local Authorities should have power to impose a rate to meet the cost of the work done by the Education Committees.

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We are not at all surprised that the Irish Local Authorities should continue to unite in protesting against the prospect which, as a result of the action of the Treasury, still seems to hang over the distribution of the Equivalent Grant in Ireland. In conformity with the decided attitude taken up at the Congress of Technical Instruction Committees held in September last at Belfast, a special Conference of Local Authorities was convened at Dublin in December, when very strong speeches were delivered by Mr. William Field, M.P., and other leading educationalists; and an influential deputation was appointed to wait upon the Chief Secretary for Ireland, to whose reply reference is made later. It is noteworthy that the sympathies of Sir Horace Plunkett's Department seem to incline in this matter to the side of the Local Authorities, the efficiency of whose schemes the Department is naturally anxious to promote. Beyond the Equivalent Grant, which has not only been severely restricted to a few thousand pounds by last year's declaration of the Treasury, but which is threatened with extinction, the Department have absolutely no

funds to dispense towards the building and equipment of local technical schools—hence, probably, their regulation that localities may not spend any money from income on buildings. Assistance for these objects, however, is now most essential to the progress of technical education in Ireland.

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We have not yet forgotten the position which, in 1897, faced our English and other Local Authorities by the withdrawal of building grants by the old Science and Art Department. These grants had been available for years; from the time of the passing of the Acts of 1889 and 1890 until payments were altogether stopped in 1901 a sum of about £76,000 was distributed to schools. During a previous period of 27 years a total of only £24,000 was distributed. It is true that the same grants remained available in Ireland, but no effective administrative machinery existed there until 1899, and, consequently, the country was not ready to take proper advantage of the grants. The position is also made much more acute in the sister Isle by reason of the fact that the motive force supplied by the Residue Grant is withheld from Local Authorities there, and a limited rating power alone is in the hands of those Authorities. We trust that the serious nature of the position will be fully grasped by the Government, so as to induce the Treasury to provide adequate funds for the important purposes of technical education in Ireland.

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Since the above was written, the deputation have laid their views before the Chief Secretary at Dublin Castle. As on the occasion when similar representations were made about a year ago, the reply of Mr. George Wyndham, M.P., was very sympathetic and showed that he was fully alive to the needs of Ireland in the matter of technical instruction. Singularly enough, he referred, as we have already done, to the South Kensington building grants at one time available for science and art and technical schools. The figures he quoted as to the total contributions made from this source fully corroborate our own; but he brought out also the interesting point that only £2,000 of the total sum had gone to Ireland, because of the non-existence of the institutes to which the money could be allocated. Whether the Equivalent Grant, as such, will remain, appears to be doubtful, but it was made quite clear that £7,000 will be available

out of the new Development Grant. When, however, we take Mr. Wyndham's reply as a whole, we fail to become possessed of that optimism which would inspire the belief that the Treasury are fully persuaded of their obligations to Ireland in the matter of funds for the ample development of technical and secondary education in that country.

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But during the last few days the distribution of the Equivalent Grant has been made the subject of strenuous debate in Parliament. As a result, the Treasury have promised "to insert "£3,500 in the Estimates for next year, as before, on the distinct "understanding that any further or future grants could not be "expected to be voted by Parliament, but ought to be provided "from funds available for those purposes [*i.e.*, technical education] "in Ireland." This is a small concession, and shows that the Equivalent Grant, as such, may go, once and for all time, after 1905. We use the word "may" because it appears to us that the Chancellor of the Exchequer, in his speech after that of the Secretary to the Treasury on the 24th February, seemed to incline in the direction of meeting the demand of the Irish members; but, notwithstanding this evidence that the Government are not unmindful of the importance of the claims of technical education in Ireland, there is still no actual guarantee of the permanent and definite appropriation of much-needed additional money for those purposes.

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Mr. F. C. Forth, Principal of Belfast Municipal Technical Institute and a recent contributor to these columns, in delivering the first presidential address at the annual meeting of the Association of Principals of Irish Technical Institutions at Newry in December, struck some useful notes as to the position of technical and secondary education in Ireland. Prior to 1899—the year of the passing of the Agriculture and Technical Instruction Act—technical instruction was almost an unknown quantity. This is clearly shown by the ridiculously small funds *available* for its promotion when compared with other parts of the United Kingdom. For instance, during the year 1896-7, in England a sum of £775,608 was expended, in Scotland £48,073, and in Wales £32,303, while in Ireland only £4,784 was spent, and that, we would point out, was entirely raised by rate: for later years

the figures were even more disproportionate. Since the year 1899, remarkable progress has been made, as we have been able to indicate from time to time. The whole country is now dotted with technical schools, and the number of students in registered technological classes has been trebled (to 2,382); the conditions previously prevailing in the intermediate or secondary schools have, in a large degree, been remodelled. An immense amount of initial administration and organisation has also been accomplished successfully. Mr. Forth did not fail, however, to point out existing difficulties and to suggest improvements in the interests of technical education. In the forefront of these he placed the need for (1) making more practical the teaching in elementary schools, (2) giving a larger proportion of the population an education of a secondary grade and (3) providing on a broad basis scholarships for deserving and capable students. As regards the second question, we understand that the Board of National Education are about to put into operation a scheme for the establishment of higher primary schools.

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We are pleased to enclose herewith an Index to the last volume of "The Record," and we trust that it will prove serviceable for purposes of reference. We desire also to intimate to our readers that we have felt compelled to hold over, until the April issue, (1) our observations upon the results of the visit to the United States of the Mosely Commission; (2) a special article on the Home Counties Nature-Study Exhibition and on Nature-Study generally; and (3) the conclusions of the Special Sub-Committee of the London Technical Education Board on Technical Instruction for Women, which contains valuable suggestions as to domestic science instruction for girls in *day* technical and secondary schools. The Education Bill for Scotland, promised in the Speech from the Throne, may be in a stage for treatment also.

II.—THE TRAINING OF TEACHERS.

PRELIMINARY PROPOSALS IN VARIOUS DISTRICTS.

(a) BEDFORDSHIRE.

MEMORANDUM ON THE TRAINING OF PROBATIONERS AND PUPIL-TEACHERS.*

By Frank Spooner, B.A., Director of Education.

Introduction.

A pupil-teacher is defined in the Elementary School Code, 1903, as "a boy or girl engaged to serve in a public elementary school "during some portion of the school hours under the superintendence "of the principal teacher on condition of receiving suitable "instruction." Usually this engagement commences at the age of 15 years and is concluded in the 19th year of the pupil-teacher. Probationers are defined as "boys or girls over 13 and under 16 "years of age exempt from legal obligation to attend school," and, with the approval of the Inspector, "employed with the intention "that they shall subsequently enter into engagements as pupil-"teachers in the school. Probationers are not permitted to serve "in school during more than half the time that the school is open, "and they must receive suitable instruction during the term of "their employment."

Except in places where a Pupil-Teacher Centre has been established, the instruction given to pupil-teachers and probationers must, on the whole, be said to be very meagre and unsatisfactory, since it commonly devolves upon the principal teacher of the school to give this instruction in his or her leisure hours. Moreover, some of the principal teachers find it difficult to keep up with the extended requirements of the Board of Education in respect of such instruction. And further, the pupil-teachers themselves thus obtain their instruction at the beginning or end of days

* Bedfordshire Education Committee: The Training of Probationers and Pupil-Teachers—Memorandum by the Director of Education (Mr. Frank Spooner) submitted (through the Higher Education and Elementary Education Sub-Committees) at a meeting of the Committee held on Friday, October 23rd, 1903 (slightly abridged). (See Editorial Notes.)

ASHTON GRAMMAR SCHOOL, DUNSTABLE. (*See page* 135.)

during which they are already sufficiently occupied with their duties as teachers of children. For these reasons alone it would be incumbent upon Local Education Authorities to provide for the better instruction of pupil-teachers and probationers employed in their schools. The matter is the more urgent because, within the last few weeks, the Board of Education has issued a new code of Regulations as to the Instruction and Training of Pupil-Teachers. These Regulations will come into force in any case not later than 1st August, 1905, and, if a Local Education Authority has its preparations sufficiently well advanced, they may be adopted sooner.

Briefly, the purpose of these new Regulations is that in the future candidates for the office of pupil-teachers shall receive their education either at an approved secondary school or in preparatory classes attached to a Pupil-Teacher Centre. Such scholars must be between the ages of 14 and 16, and for those two years may not serve in any capacity in a public elementary school. At the age of 16 (in rural schools 15 may be substituted with the special consent of the Board of Education) the candidate may be admitted as a pupil-teacher for a period of two years (or in rural schools, with the special consent of the Board as before mentioned, for three years). Whilst a pupil-teacher, he or she must attend not less than 100 nor more than 200 meetings annually in a public elementary school for training in the art of teaching, the rest of the time being occupied in receiving instruction at a secondary school or at a Pupil-Teacher Centre. Under these Regulations a pupil-teacher will no longer be taken into account in determining the minimum staff of a school.

Of the alternative plans for educating probationers and pupil-teachers, that of making provision for them in existing secondary schools seems preferable. If a boy or girl enters a secondary school immediately upon acceptance as a probationer, there will be secured for him or her at least three or four years of sound general education, during the first half of the period with no interruption by attendance required in the elementary school, and during the latter half of the period still a half of every week will be available for continuing the same general course of studies. During the whole of this period he will have the advantage of mixing with school fellows intended for other careers, of instruction from teachers of high intellectual attainments and of associations which cannot fail to broaden his sympathies and extend his intellectual horizon, so that he may presently enter the teaching ranks so much the better qualified by reason of the greater extent of his knowledge and wider range of his interests.

Meanwhile the three following questions require . . careful and immediate attention . . . :—

(1) What can be done to improve the instruction which will be given to pupil-teachers now employed in schools in the county during the next year and a half ?

(2) Are all the boys and girls at present serving as probationers in the elementary schools in the county eligible for appointment in due course to the office of pupil-teacher ? If so, what steps shall be taken during the next year and a half to provide for their education ?

(3) What method for the training of probationers and pupil-teachers will be necessary under the changed conditions ?

Saturday Classes for Pupil-Teachers.

In reply to the first question it is suggested that the pupil-teachers should on and after 1st January, 1904, be required to attend for instruction on Saturdays in each week at central classes to be held at Bedford, Luton and Biggleswade. A careful examination of the geographical distribution of the pupil-teachers at present employed in the county makes it appear that these three centres would be, on the whole, the most convenient, and that with hardly an exception all pupil-teachers in the county could conveniently reach one or other of them. The schools from which the pupil-teachers should attend at the various Centres are as follow :—

Bedford	Centre	14	schools	with	27	pupil-teachers.
Biggleswade	,, ...	7	,,	,,	24	,,
Luton	,, ...	13	,,	,,	22	,,

In addition to the above, there are 33 pupil-teachers who propose to sit for the King's Scholarship in December next. It is not too much to say that some of these will not pass, and will desire to be allowed to continue in their schools one year more in order to sit for the examination again in December, 1904. It is suggested that all who are thus permitted to remain should also be required to attend the Saturday classes and be included with those preparing for the same Scholarship Examination.

The hours of instruction should be from 9-30 to 12-45 (which allows a break of 15 minutes for lunch especially for those who come from the greater distances) and 2-15 to 4-15; in all, five hours. The pupil-teachers should be allowed third-class railway fare, and, where a teacher's home is more than one mile distant from the railway station (or from the Centre itself if no train service is available) a further allowance of threepence per mile one way, for

the distance thus required to be travelled by road, should be made. In addition, dinner should either be provided by special contract or an allowance for the same should be made.

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It is estimated upon careful examination of all the individual instances that, assuming the pupil-teachers to attend their classes during 44 weeks in the year, the total cost of the travelling allowances for a year would amount to £220. If an allowance toward the cost of dinner is admitted to be necessary, £1 per annum per student would probably be sufficient.

The following are the subjects in which pupil-teachers need to be instructed :—

Drawing, arithmetic, algebra and Euclid, geography, history, English language and literature, English composition, elementary science, music, a language other than English, needlework (girls only), theory of teaching.

It is obviously impossible to deal as exhaustively as is necessary with the whole of these subjects, with but one day in the week available for the purpose ; but by skilful management of the time-table and with some slight assistance from the head-teacher in each of the schools sending up pupil-teachers, the pupil-teachers will receive a far more systematic and satisfactory training than hitherto, and, given due diligence on their own part, may be expected to acquit themselves creditably at the King's Scholarship Examination. It will probably be wise not to attempt to teach needlework at the Saturday classes, but, under the present provisional arrangement, to require the local head-mistress to give her pupil-teachers one hour's instruction per week in that subject.

The pupil-teachers must be divided into two classes according as they are preparing for the King's Scholarship in December, 1904, or for the same examination in December, 1905. There will thus be required at least two, and probably three, good teachers at each of the three Centres. One of these should be appointed as principal teacher, and made generally responsible for the classes at his Centre.

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The total fees required for the whole of the teaching staff would probably amount to from £250 to £300 for the year. The gross cost would thus amount to from £550 to £600. Against this there would be the receipts by grants from the Board of Education amounting to about £200. If, as is quite possible, the Bedford Elementary Education Authority would be willing to enter into an arrangement whereby their pupil-teachers (about ten in number) should receive instruction in the same classes, a further sum will

be received from that Authority in payment of their proportion of the cost. The *net cost* to the county may thus reasonably be estimated not to exceed £400 for the whole year. During the remainder of the present financial year, upon the assumption that there will be no income during that period by pupil-teacher grants, the Committee would have to provide for an expenditure of about £150. As the average income from the Local Taxation (Customs and Excise) Duties is already allocated for the present financial year, it is submitted that the Committee should obtain the permission of the County Council to exceed their estimates by the amount in question.

If the pupil-teachers are to attend all day on Saturdays at central classes, it will be necessary that they should be released from attendance at their school on two half-days in the week—if possible, on the morning of one day and the afternoon of another. At present each pupil-teacher counts for 20 on the staff of an elementary school, but the withdrawal of the pupil-teachers from the school in the manner suggested will not bring the staff below the minimum required by the Code, excepting in seven cases. . . . . The manner in which the deficiency of staff in these schools shall be supplied will require the special attention of the local managers and of the Elementary Education Sub-Committee, as will also the whole question of staffing in view of the operation of the new Pupil-Teachers' Regulations.

Probationers now Employed in the Schools.

There are about 40 probationers employed in elementary schools in the county. It is of great importance that they should be brought under proper instruction without delay. Here, again, the secondary school is undoubtedly the best means to employ. But, before any plan is considered, it is necessary that these probationers should be brought under examination in order that their educational attainments and fitness for subsequent appointment as pupil-teachers may be ascertained. The Organising Secretary begs to recommend that the Committee should require them to attend at Bedford at an early date for examination. As it is more than probable that there are boys and girls in some of the schools whose parents desire that they shall submit themselves for ultimate appointment as pupil-teachers, it is suggested that notice should be given to the local managers of all the elementary schools in the county that any such applicants may submit themselves for examination at the same time. Two sets of papers of questions should be prepared—(i) for those under 15 years of age and (ii) for

those over 15. Candidates should be examined in the following subjects:—reading, writing, arithmetic, English and history *or* geography. For those under 15 years of age the standard should be in accordance with Schedule V. of the Elementary School Code, 1903, in respect of candidates for a three years' engagement; for those more than 15 years of age, the standard should be that for candidates for a two years' engagement.

From what appears in the following section of this Memorandum it will be seen that the action which the Committee may take upon the results reported to them of this examination will involve important consequences. Candidates finally approved will, in fact, be thus elected to scholarships of considerable value. It is suggested, therefore, that those who successfully pass this examination should be required to present themselves again for re-examination in the early days of November, 1904, that the Committee may thus be fully satisfied that the scholars are fit to receive the scholarships which (assuming that the scheme suggested hereunder is approved) will then be awarded them.

In the meanwhile, it is submitted that it is undesirable to set up any temporary form of instruction for probationers, but that their respective principal teachers should be required until November, 1904, to direct and supervise their studies in accordance with instructions which will be submitted later on to the Committee for their approval.

It is desirable in this connection to direct attention to the fact that there are at present no fewer than 107 monitresses employed in schools in the county, and that 64 of these are between the ages of 13 and 16 years. It is of the greatest importance that the Committee should take steps at once to ascertain the fitness of these girls for the position they occupy, and generally to inquire into the whole question of this monitorial system. It is, therefore, recommended that all those between the ages of 13 and 16 should be required to sit at the first of the two probationers' examinations above suggested, and to take the papers for those under 15 years.

How can Pupil-Teachers best be Trained in Future?*

To answer this question is to suggest an entirely new scheme which shall meet the requirements of the new Regulations of the Board of Education for the Training of Pupil-Teachers. Compliance with those demands will be equivalent to providing

* The suggestions contained in this Section form a part of the scheme for the provision of higher education which is dealt with as a whole in the Review Section on pp. 125-36.

probationers and pupil-teachers with a secondary education from the age of 14 to 18 years, specialising the same to a certain extent during the last two years. In future, probationers and pupil-teachers will really be boys and girls to whom county scholarships of a special kind have been awarded. Adequate provision for the training of these teachers involves the erection of a system which may at first appear elaborate and costly, especially when compared with the old pupil-teacher system which it will displace. But the Director of Education submits the following only after long and anxious consideration of the problem—a particularly difficult one to solve in respect of county areas; he has some confidence in the belief that his scheme will bear close examination as offering a satisfactory method of solution.

It is necessary first to observe that, excluding Bedford and Luton, there are at present 92 pupil-teachers and 40 probationers in the county. This is probably a larger number than would be found were it not often the case in the past that these teachers have been employed because of their cheapness, and, too often, with very little regard for their special fitness for the career of a teacher. (i.) It is submitted that the total number of probationers and pupil-teachers which the County Education Committee should admit for the purposes of this scheme should not be more than 60 at any one time. (ii.) The Committee should resolve that all boys and girls benefitting under this scheme shall receive their education at some secondary schools recognised and approved by the Committee. (iii.) The Committee is required to provide the education free of cost to the scholar, and it is submitted that, in lieu of the wages paid under the old pupil-teacher system, a maintenance allowance must be made.

Outline of Scheme.—The first scholars under this scheme should enter upon their term of scholarship on 1st January, 1905, and the conditions of the award should be the following:—

(1) Fifteen county pupil-teacher scholarships shall be awarded annually upon the results of an examination to be held early in November in each year.

(2) The scholarships shall be open to boys and girls, and shall be awarded in such proportion in each year as the Committee shall determine upon their consideration of the report on the examination.

(3) Candidates must be 14 years of age at any date falling within the year in which they present themselves for examination, and their parents or guardians must have been resident within the county (excluding Bedford and Luton) for not less than the two years next preceding the date of the examination.

(4) A boy or girl already holding a minor county scholarship in a recognised secondary school may, subject to the foregoing conditions, compete for these scholarships, but, if elected, shall relinquish the scholarship he or she then holds in order to take up the scholarship newly gained.

(5) In awarding the scholarships the Committee will give the preference, other things being equal, to those boys or girls who have entered any recognised secondary school at or before the age of twelve.

(6) The scholarship shall, in the first case, be tenable for two years, and shall be renewable for two further years only upon a satisfactory report as to diligence, progress and good conduct.

(7) The scholarships shall provide instruction free of cost, residence and maintenance at Bedford during the school terms, and an allowance of £3 during each of the first two years and of £5 during each of the third and fourth years.

(8) The scholarships will be awarded in the first instance and renewed at the end of the second year, subject to the medical certificate required by the Board of Education.

If this scheme is adopted and is brought into operation on 1st January, 1905, there will be scholars as follows ready to be taken up on that date :—

(1) The pupil-teachers now under engagement and preparing for the King's Scholarship Examination, December, 1905 ;

(2) The pupil-teachers now under engagement or who may be engaged during the next twelve months, and who will be preparing for the King's Scholarship, December, 1906.

(3) The probationers now under engagement, and who, subject to report upon the examinations recommended in Section II. of this Memorandum, will enter upon their engagement as pupil-teachers as from 1st August, 1905.

(4) The probationers who successfully compete in November, 1904, for the first scholarships offered under this scheme.

In the case of those belonging to Classes 1, 2 or 3 here mentioned, some form of supplementary agreement would have to be made as 1st August, 1905, approaches, in order that they might be brought within the provisions of this scheme.

It does not appear that the new Regulations require that a pupil-teacher shall be definitely allocated to a particular elementary school for the purposes of *practice* in the art of teaching. Under the scheme now proposed, whether this be necessary or not, it is manifest that the County Authority can allocate their pupil-teachers for this purpose only to schools within the vicinity of the selected secondary schools.

Conclusion.

Throughout this Memorandum pupil-teachers in the employment of the Education Committees for the boroughs of Bedford and Luton have not been specially considered. Their education—being a form of secondary education—must, however, be considered as a matter of some concern to the County Education Committee, and it is to be hoped that it will be found possible to co-operate with both those Authorities, so that provision for their pupil-teachers may be included in a comprehensive scheme.

(b) MANCHESTER AND DISTRICT.*

General Considerations.

The Education Committees throughout the country have no more difficult task, nor one more exigent, than that of providing the means of securing an adequate supply of efficiently-trained teachers for the elementary schools.

The number of pupil-teachers in the elementary schools for the last twelve years shows practically no signs of increase, and, if measured by the increase in the number of scholars in average attendance, shows an actual decline. In 1890, the number of pupil-teachers in the elementary schools was 31,162, and the number of scholars in average attendance was 3,717,917—or, one pupil-teacher for every 119 scholars. In 1902, the numbers were respectively 31,826 and 4,890,237, or one pupil-teacher for every 150 scholars. The number of male pupil-teachers, moreover, shows an actual decrease, viz., from 7,695 in 1890 to 5,633 in 1902.

There is no doubt whatever that the hard conditions of the life of the pupil-teacher, the small remuneration offered and the uncertain outlook in the future are chiefly responsible for the poor and ineffective supply.

In Manchester, in consequence of the better provision for training, the conditions have been somewhat more favourable with respect to the supply of candidates, though even here the number of male candidates as compared with female candidates offering themselves has been disappointingly small.

The much more favourable conditions as to salary which the Education Committees are everywhere offering will undoubtedly

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* Manchester Education Committee: Report upon measures necessary to secure an adequate supply of efficiently-trained teachers for the elementary schools of the city of Manchester and the surrounding area. Signed by E. C. Maclure, D.D., Chairman, Sub-Committee for the Training of Teachers, 9th December, 1903. (See Editorial Notes).

have the effect of stimulating the desire to take up the profession of elementary school teacher, especially amongst girls of a better social position—a result which cannot but be of a highly beneficial and desirable character. Much may be hoped from the effect of the new Regulations for the Instruction and Training of Pupil-Teachers issued in the present year, which Regulations had already been anticipated by this Committee, and provision made for bringing them into effect early in the ensuing year.

Under these Regulations, candidates and probationers in the service, or entering into the service, of the Committee will be required to attend for the whole period of their probation—that is, up to the age of 16 years—in a secondary school. At the age of 16 they will, if selected, be apprenticed as pupil-teachers for two years and attend half their time at the Pupil-Teachers' College to pursue their studies and the remaining half in the schools to which they are attached with a view to practical training as teachers. The ultimate object of their training in the College is to prepare them for either a King's Scholarship Examination in professional subjects or for the Matriculation subjects in the University, or for both.

The admitted necessity of securing better material for the profession of elementary school teacher makes it obviously most important that the candidates from the very first be most carefully selected, both from the point of view of physical condition and of mental capacity, and that during the two years of their probation their progress be carefully observed with a view to test their final fitness for apprenticeship as pupil-teachers.

Having regard to the desirability of a generous and liberal preparatory training for pupil-teachers up to the age of 18—the close of their apprenticeship—it is important, in addition to such desiderata as drawing, penmanship, needlework (in the case of girls) and singing, that the course of instruction and training should be concerned with the subjects of the Matriculation Examination of the University, which might thus be regarded as a leaving examination.

In considering the action that should be taken by Manchester in connection with the pressing necessity of providing further training college accommodation for elementary school teachers, it has been thought best that the whole question of the supply of such teachers should be dealt with in any proposals to be laid before the City Council, and accordingly this report deals with the whole of the period of training necessary to be provided in order to keep up an adequate supply of properly-qualified teachers.

Outline of Scheme for Pupil-Teachers in Manchester.

By way of introduction, it is only necessary to add that the Manchester City Council have already approved of—

(1) The immediate application in the city of the new "Regulations for the Instruction and Training of Pupil-Teachers" drawn up by the Board of Education, by which in Manchester no additional pupil-teachers will be engaged who have not reached the age of 16 years on or before the 1st of August in each year;

(2) The establishment of a number of bursaries, to be awarded on examination, to aid in the secondary education of selected boys and girls under the age of 16 years desirous of becoming pupil-teachers;

(3) The extension of the Central Municipal School and the temporary use of the present Stretford Road Pupil-Teachers' Centre for candidates already in the employment of the Education Committee, so as to give the necessary accommodation for candidates intending to become pupil-teachers;

(4) The erection of a Pupil-Teachers' College on the Chorlton Street site, and, pending its provision, the use of the premises in Princess Street for the purposes of such a college—the requisite alterations are now about to be carried out at Princess Street (formerly the Technical School), and it is hoped that by the 31st of March next the instruction of the pupil-teachers will be fully reorganised.

Looking to the arrangements which must be made by the Education Committee for keeping up the local supply of pupil-teachers (from which in time must come the great bulk of the certificated teachers required for the municipal and non-provided public elementary schools of the city), it is most desirable that measures should immediately be taken to make provision for securing an automatic supply of properly-trained certificated teachers for the public elementary schools.

It is recommended, therefore, that a public announcement be at once made of the intention of the Committee in the month of March next to offer 300 bursaries for boys and girls of the age of 14 years who, at the age of 16 or thereabouts, will be willing to become candidates for engagement as pupil-teachers. The bursaries, being established to aid in the general education of such candidates, will be tenable in secondary or other day schools approved by the Committee, and will be of the following value:—

80 bursaries for boys aged 14...£15, and aged 15...£20 per annum.
220 ,, girls ,, ...£10, ,, ...£15 ,,

The bursaries will be awarded on the results of a public examination to be conducted under the direction of the Education

Committee, the subjects and scope of which will be duly announced. The conditions for the bursaries are set forth in the Appendix, p. 36.

In the month of May in each year an examination of the candidates will be held. This examination will be conducted by the Education Committee, and, subject to their approval, candidates about to complete their courses of instruction as bursary-holders, together with other approved candidates, will sit at this examination. The selected candidates shall from the 1st of August following be engaged as pupil-teachers for a period of two years. According to the present scale of the Education Committee, these pupil-teachers would receive the following salaries :—

Boys ..... £25 1st year £27 10s. 2nd year } per annum.
Girls ..... £15 ,, £18 ,, }

At the time appointed by the Education Committee, all pupil-teachers in their employ shall proceed to the King's Scholarship Examination or such other examination as may, with the approval of the Committee, be taken in substitution therefore.

All Government Grants earned on behalf of probationers (*i.e.*, bursary-holders) or on behalf of pupil-teachers shall, on such conditions as are prescribed by the Education Committee, be paid over to the managers of the schools or centres attended by such probationers or pupil-teachers, and shall be applied in aid of the cost of their instruction, etc.

Training College Accommodation for the District.

It is a matter of common knowledge that the accommodation in the existing training colleges is entirely inadequate to provide for those who are well up in the King's Scholarship lists, whilst there are others equally well placed who find themselves under present conditions, and by reason of straightened means and other circumstances, debarred from entering them.

Whilst there are in England and Wales 14 denominational residential colleges for men and 25 for women, there are only two undenominational colleges for men and six for women. The number of day training colleges is twelve for men and women, four for men only and three for women only, whilst 15 of the residential colleges also admit to a small extent women day students. In Lancashire and Cheshire there is one denominational residential college for men and two for women, and one undenominational residential college for women, together with two day training colleges for men and women, one of each of which is attached respectively to the Universities of Manchester

and Liverpool. It will be observed that there is no denominational or undenominational residential college for men in the county of Lancashire, and that the undenominational one for women is situate in Liverpool. Neither of the day training departments belonging to the Universities have any hostels attached to them. In England and Wales there are at present 65 training colleges which supply annually about 2,800 teachers, who have on the average been trained for rather more than two years.

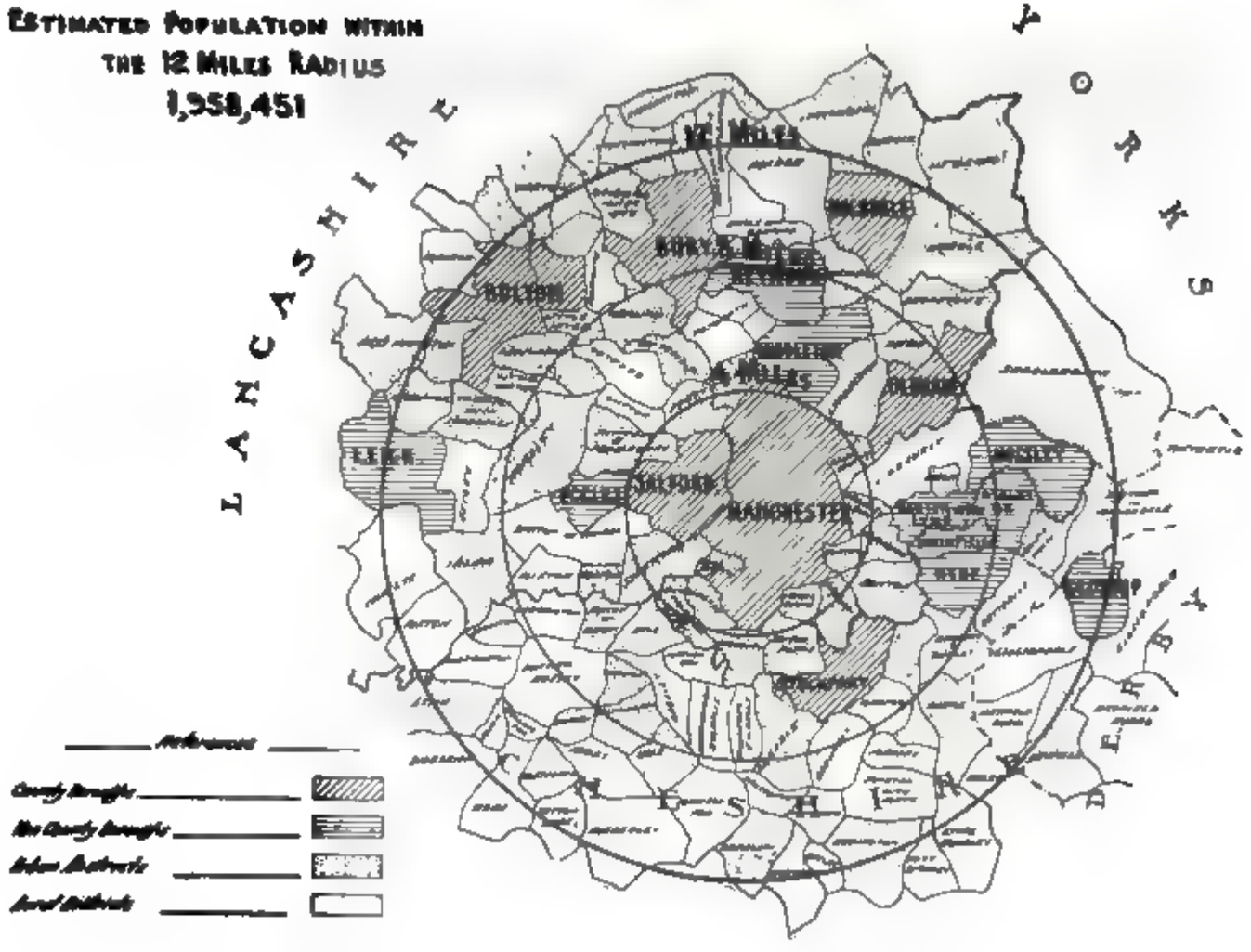
According to the last Government Report on Training Colleges, it is calculated that an annual supply of 4,730 trained teachers is required on the basis of the present population, and that to keep pace with the growth of the population a still further largely increased supply, estimated at 1,000, must be provided.

It is clear that there does not exist in either or both of the counties Palatine a sufficient supply of the means of training of teachers, and that the need is pressing. As an illustration of the area which it would appear convenient to serve, advantage has been taken of the map annexed (prepared in connection with the proceedings before the Privy Council for the constitution of the University of Manchester), which shows that within a twelve-mile radius of the Manchester Exchange there is a population of 2,000,000. This may be regarded as a convenient and homogeneous area, and very suitable for the establishment of undenominational residential colleges for the training of teachers, in addition to the provision now available in the day training department of the Owens College, in which the present limit of accommodation is for 100 men and for 100 women on a three-years' course.

Upon the assumption that Manchester and the district beforenamed, with any other contiguous area that may be found convenient, take their share of national responsibility for the training of teachers for the elementary schools, it is estimated, upon the basis of a child elementary school population of 400,000 residing within the area, there will need annually a supply of upwards of 300 trained men and women teachers over and above the existing sources of supply within the area, the number of trained teachers required being increased with the increase of area and population.

It is most desirable that all the teachers accepted for service under the Committee shall have passed through an approved training college, either residential or attached to a university; and with a view to the demand thus created, it is suggested that provision should be made in the first instance in conveniently-situated rented buildings for two undenominational residential colleges, one for women and another for men. Even if such houses

MANCHESTER


Estimated Population within the 12 Miles Radius
1,958,451
LANCASHIRE
YORKS
12 Miles
9 Miles
6 Miles
MANCHESTER
CHESHIRE

had to be extended to afford additional dormitory and class-room accommodation, this course would in the first instance be preferable to embarking on the immediate erection of college buildings. Time would undoubtedly be saved, and there would be the additional advantage of the Authorities obtaining further experience before any serious capital expenditure was incurred. It is desirable that these colleges should be established by the joint action of the City, County, and County Borough Authorities within the district.

The main purpose of such colleges would be to provide a training over two years in the subjects of the certificate course of the Board of Education for trained teachers. The number of candidates who are prepared or qualified for, or for whom it is convenient to take a graduate course in a day training college, must in the nature of things be comparatively small. Under present conditions, the requirements of the double course—namely, for graduation and for the certificate course, which must be taken simultaneously where a degree is desired—are very severe, ranging from 30 to 40 hours per week, and being a considerable increase upon the college lectures and class work required from the ordinary graduate. Arrangements could, however, be readily made in the case of the certificate students who have completed their two years' course in the first class to count such courses as one year towards the three years' graduate course, so as to enable them to complete their university studies for the degree in two additional years.

The provision of an undenominational hostel for the present day training men and women students of the Owens College is desirable. Provision for hostels is already projected by the Roman Catholic authorities for their students, and it is proposed to use for the purpose St. Bede's College as a hostel for men and the Loreto and Bignor Street Convents for women. It is intended also to provide, in connection with Owens College, a hostel for members of the Church of England.

It would appear from the last official return that the expenditure for the training of teachers in residential colleges and in day training colleges, apart from buildings, has been, within a comparatively small amount, met by the Government grant and the students' entrance fees.

Further Provision for Assistant-Teachers in Manchester.

No scheme for securing an increased number of certificated teachers would be complete without due consideration of the undoubted claims of the uncertificated assistant-teachers already in the employ of the Manchester Education Committee, numbering 97 men and 961 women—total, 1,058 (including 174 "Article 68"

teachers). The majority are "Article 50" teachers, who, having passed the Scholarship Examination, are recognised as assistant-teachers under the provision of the Code. These have been unable from various causes, such as domestic circumstances or the lack of training college accommodation, to benefit by college training. To obtain their certificates they must resort to private study under onerous conditions.

To meet the needs of those assistant-teachers, including the "Article 68" teachers, it is suggested that in connection with the Pupil-Teachers' College about to be erected, suitable provision should be made for day certificate classes at which these assistant-teachers might receive, say, half-time instruction. An arrangement might well be made under which these teachers should enjoy the opportunity of making an entirely voluntary arrangement with the Committee, namely, to teach half-time in the schools and to devote the other half to attendance at the proposed certificate classes.

An arrangement of this kind for acting teachers is already in force under the London School Board, which is described in the following extract from the Government Report on the Training Colleges:—

"They adopted the idea of student teacherships, an extension "of the system already applied to their pupil-teachers. A number "of students eligible for admission into training colleges, but who "cannot proceed thither, are selected for appointment as assistants. "They serve half-time in school, and half-time attend training "classes. The men are paid £35 per annum, and the women "£30. The course is for three years, and they receive free "instruction in all subjects of instruction for the certificate, "and, more important still, their practical training is carefully "attended to. They work in school under competent "head-teachers, who report upon them, and every week two of them "are chosen to prepare and give lessons before the other students "and the superintendent, which are followed by criticism. This "is a good plan. It gives teachers who are unable to enter college "systematic instruction and some relief from the drudgery of "school work while going on with their studies. As a half-way "house, intermediate between training and no training, it deserves "consideration."

It will be seen that this scheme necessitates a reduction in the salaries of the assistants who avail themselves of the provision, whilst it entails some additional expenditure on the part of the Committee in the provision of the means of instruction. It is believed, however, that the plan would afford an invaluable means for enabling the uncertificated assistant-teachers to secure certificates under more favourable conditions, and thus materially improve their position.

Should there be any disposition on the part of the neighbouring Education Authorities to afford their uncertificated assistant-teachers similar privileges, there could be no reason why the Manchester Education Committee should not, to the extent of the accommodation available, be willing to admit teachers coming from such districts.

Conclusion.

The Education Committee have attempted in this report to cover the whole field of training required for the profession of elementary school teacher, and desire their representatives to bring the foregoing suggestions before the adjourned Conference on the training of teachers to be held early next year.

APPENDIX.

Conditions for the Award of Bursaries.

(1) Each candidate must produce evidence of character and of physical fitness—the latter to be determined by the Committee's medical officer—and must pass the Committee's examination.

(2) On the award of the bursaries, which will run from the 1st of July, the parents or guardians will be required to enter into a written guarantee that the whole of these conditions on their part shall be observed, and that in default they will refund to the Education Committee all moneys paid in respect of such bursary.

(3) That the bursary-holders shall during at least two years attend regularly a secondary or other day school approved by the Committee, and shall half-yearly, or more frequently if required by the Committee, produce satisfactory evidence of their diligence, good conduct and proper progress in their studies.

(4) That on the completion of the term covered by the bursary the holder shall, if required by the Education Committee, proceed to an engagement as pupil-teacher for the full term prescribed by the regulations of the Board of Education.

(5) The Education Committee reserve the right to determine the duration of any bursary at any time, and also the right to select as pupil-teachers only those of the bursary-holders who are able to pass an examination conducted by the Committee for entrance upon apprenticeship as pupil-teachers and who fulfil any other requirements as to fitness prescribed by the Committee.

(6) The amount of the bursaries will be paid to the parent or legally qualified guardian by quarterly instalments due on the 30th September, 31st December, 31st March and 30th June during the years of tenure.

(c) STAFFORDSHIRE.

MEMORANDUM ON THE TEACHING AND TRAINING OF PUPIL-TEACHERS.*

By Graham Balfour, M.A., Director of Education.

Introduction.

The main requirements of the Regulations for Pupil-Teachers issued by the Board of Education in July, 1903, stated in general terms and apart from minor qualifications, are that in the near future no children, other than regular pupil-teachers, shall be employed in public elementary day schools; that all pupil-teachers shall have been educated until the age of 16 (or 15 in rural districts) in a secondary school or some equivalent; that every pupil-teacher shall serve for half-time only, and for two years, and shall, during that period, be trained in a Pupil-Teacher Centre. (See Appendix, pp. 45-6.)

It is essential in treating this question to discriminate clearly between two distinct classes—(1) What I have here called pupil-teacher candidates, that is, boys and girls up to the age of 16, possibly, but not necessarily, holding special county scholarships, and in any case attending secondary schools, or some equivalent; (2) pupil-teachers proper, all aged 16 (in rural districts 15) and upwards, who have attended secondary schools or some equivalent.

If these Regulations are to be carried out, it will be necessary to consider:—(1) for how many pupil-teachers in this county educational provision must be made; (2) how much additional accommodation must be provided—(*a*) in secondary schools, (*b*) in Pupil-Teacher Centres; (3) what will this cost?

Number of Pupil-Teachers to be Provided For.

This may be estimated in two ways:—(*a*) from the number of pupil-teachers at present employed in the administrative county, as modified by the new Regulations as to half-time, and considered with regard to the present annual output of pupil-teachers who have served their Articles; (*b*) from the number of pupil-teachers required to make good the annual wastage in the ranks of the teachers in the county.

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* Staffordshire Education Committee: Director's Memorandum on the Teaching and Training Accommodation necessary to carry out the new Regulations for Pupil-Teachers, 1903, and the probable cost to the county, 23rd December, 1903 (slightly abridged). (See Editorial Notes.)

(*a*) The number of pupil-teachers, probationers, etc., employed in the administrative county . . . in October, 1903, as ascertained from returns made to this Office, was 1,727 (295 males and 1,432 females). 1,114 of these were indentured pupil-teachers, most of whom were being trained for three years. They are divided as follow:—first year, 277; second year, 356; third or last year, 481 = 1,114. (The number of the third year may perhaps partly be explained by the fact that some pupil-teachers by arrangement defer their examination till the fourth year, but the figures 277 show that unfortunately there is a great decrease in the number recently apprenticed, which this Committee will have to do its best to remedy.) However, an average of the three years may be fairly taken as the final output, 370.

But it is obvious that there will be a certain wastage, and we shall . . be within reasonable bounds if we ask for 450 each year from the secondary schools, thus assuming that there will be a wastage of about nine per cent. per annum in the course of two years.

Note.—For present purposes we are not considering the question of staffing the schools. If the remainder of the 1,114 pupil-teachers are not employed in the schools, and the engagement of any of the 613 probationers, etc., is forbidden in the future by the Regulations, their places will have to be filled with older assistant-teachers at a heavy expense to the county. It is, however, doubtful whether such older teachers can for some time to come be obtained at all.

It is possible that formerly for the sake of economy there was a needlessly large number of pupil-teachers in Staffordshire, and more especially of probationers and monitors, although the last named are not permanently reckoned on the staff. It is also possible that many of these pass into the service of other counties and county boroughs. It is quite certain that no arrangement will be finally satisfactory which does not compel every Education Authority in England to provide for the training of a number of pupil-teachers proportionate to the number of children in the elementary schools.

(*b*) The number of teachers, certificated and assistant (including Articles 50, 51 and 68), in the administrative county at the present moment is as follows:—

	Certificated.	Assistants (Uncertificated).		
Men	707	 242	=	949
Women	1,111	 1,835	=	2,946
		Total.....		3,895

The annual wastage is extremely difficult to calculate. Among certificated teachers the best authority puts it as a little over three per cent. for the men, and a little over five per cent. for the women. It is undoubtedly greater among the women than among the men, among the uncertificated than among the certificated, and during the first few years of service than later. If we take it among male assistants at seven per cent., and among females at 15 per cent., we shall be making a conjecture which appears on all other grounds to be most reasonable and at the same time almost exactly coincides with our previous result. The net result on this reckoning would be that some 40 new masters and 334 new mistresses would be required each year = 374 in all. It must, however, be remembered that a number of assistant-teachers approach the profession by other avenues, and some of them have had no training.

CONCLUSION.—Let us assume, then, that 370 pupil-teachers should be promoted each year at the end of their two years' training and 450 taken in. In the proportion of the sexes at present prevailing among assistant-teachers . . . 85 per cent. should be girls (Cd. 1,763, p. 32); but perhaps it would be more satisfactory to try and obtain 25 per cent. of boys. In that case, about 110 boys and 340 girls would be required from the secondary schools, *i.e.*, 450. There would thus be 450 pupil-teachers beginning the 1st year +410 second year, and gradually dwindling, say, 850 pupil-teachers in all working half-time in elementary schools, and spending the other half of their time in being trained at Pupil-Teacher Centres.

Accommodation Required.

ACCOMMODATION ALREADY EXISTING: SUPPLY OF PUPILS NOW LEAVING SECONDARY SCHOOLS.—In May, 1903, the pupils in the secondary schools of Staffordshire, together with the Staffordshire pupils attending the secondary schools just outside the county, numbered 2,946—1,729 boys and 1,217 girls. Assume that the average school life in the schools is four years (which is under the mark if pupil-teachers are not to leave till 16), there would be 432 boys and 304 girls leaving these schools each year.

Assume that one boy in ten becomes a pupil-teacher and one girl in five (which is far beyond the mark), we should have 43 boys and 60 girls, *i.e.*, we should still want 347 children. We could not possibly afford more than 200 intending teaching candidate scholarships a year (of which there would be a wastage of at least ten per cent per year) and then should still want 185

children more from the rank and file of the school. [It must be remembered that most parents who intended from the beginning to make their children elementary teachers would send them in for pupil teaching county scholarships.] How could the additional 185 children (46 boys and 139 girls) be obtained ? Calculating on getting one boy in ten and one girl in five from a school, and that we require one boy to three girls, we should need 460 more boys leaving school each year, *i.e.*, an additional male secondary school population of 1,840 staying there four years, and 695 girls each year, or 2,780 girls in all, 4,620 more children at secondary schools in all. This would considerably more than double the existing secondary school population.

ADDITIONAL ACCOMMODATION NEEDED:—(*a*) in secondary schools for 4,620 children (in addition to 2,946), if we are to provide the percentage of pupil-teachers estimated above; (*b*) in Pupil-Teacher Centres for 850 pupil-teachers.

(*a*) Besides the existing secondary schools, of which there are some 14 in the county suitable for boys and eight for girls, and some 16 for boys and 13 for girls outside the administrative county, but just on its borders* there are several places where it is highly desirable to provide secondary schools in order to be within reach of considerable sections of the population, viz., (i) for both boys and girls—Bilston, Brierley Hill, Burslem, Cannock, Smethwick, Tipton; (ii) for girls only—Handsworth, Rugeley, Stoke, Tamworth, Uttoxeter.

Eleven schools, with additions to those already existing, ought easily to be able to accommodate the additional 4,600 children. Co-operation with neighbouring Authorities might in some cases be advisable, but would not very materially lessen the cost.

(*b*) Pupil-Teacher Centres to teach 850 pupil-teachers.

The only Day Pupil-Teachers' Centres at present existing in the county, or available for its use, are the following, with the number of pupil-teachers, male and female, based on the number at present attending from elementary schools in the administrative county:—the Potteries (Hanley), 118; Stoke, 38; Burton, 4; Handsworth, 32; Longton, 37; Smethwick, 55; Willenhall, 24; Wolverhampton, 45; totals, 86 male, 267 female.

To these there would require to be added the list of probable Centres already suggested by the Sub-Committee (the numbers approximate very roughly to the numbers of pupil-teachers in

* The lists of names of these schools are published as Appendices A and B to the Memorandum.

neighbouring schools who might be able to attend) :—viz., twelve, with 120 male and 360 female pupil-teachers approximately.

[In the notes to the Board of Education Circular 494 . . . Mixed Centres are, however, discouraged.]

The Cost.

What the cost of this would be is very difficult to say.

EXPENDITURE.—It would fall under the following heads:—(1) scholarships; (2) annual maintenance of secondary schools; (3) annual maintenance of Pupil-Teacher Centres; (4) repayment of interest and principal on building (*a*) of secondary schools, (*b*) of Pupil-Teacher Centres.

(1) Two hundred scholarships, at £15 a year, tenable for three years, given yearly, £9,000.

The value of the scholarships should be estimated to include at any rate the following items:—

(*a*) School Fees.—It is doubtful whether the actual fee should be paid by the county in each case, and thus vary from about £4 to about £15 (for a limited number), or whether a fee of £8 should be allowed, except in cases where the actual fee falls substantially below that amount, as at present in some higher grade and technical schools. In the latter case the best boys' schools, such as Wolverhampton and Newcastle High Schools, to which it is highly desirable that future pupil-teachers should go, would be practically shut out, except in the case of comparatively well-to-do families.

(*b*) Grant for books; (*c*) railway fares; (*d*) maintenance—actual cost of lunch.

(2) Entirely depends on what fees could be charged at the new secondary schools.

The actual cost of education at the secondary schools in Staffordshire, as shown by our returns, works out at about £10 for a girl and £12 for a boy, without counting payment of interest, etc. The salaries of secondary teachers are, however, at present distinctly inadequate, and will quite certainly rise immediately. We must, therefore, reckon the cost at £1 more per head, viz., £13 for boys and £11 for girls. If these sums could be charged, and the full additional supply of pupils obtained, there would only be an occasional deficiency to make good and the loans to be repaid. But, if, as appears from the Regulations, it is necessary to provide secondary school accommodation sufficient to educate boys and girls enough to fill the ranks of pupil-teachers, then, at present the school population is short, as we have seen, by 4,600, and it is extremely improbable that they could be induced to come in at this price.

If £6 were charged for boys and £5 for girls the annual loss to be made good by the county would be 1,150 boys at a loss of £7 apiece, *i.e.*, £8,050; 3,450 girls at a loss of £6 apiece, £20,700; total, 28,750.

But before any such scheme could be suggested, the question of competition with existing schools must be considered with the utmost thoroughness and deliberation.

(3) The Pupil-Teacher Centres would require at the rate of £6 a head for each half-time pupil-teacher—850 pupil-teachers, £5,100.

(4) (*a*) Building required for eleven schools (existing laboratories, etc., being utilised), say, £5,000 apiece—£55,000: interest at three per cent., subsequently decreasing (annually), £1,650; repayment in 30 years (annually), £1,833; total, £3,483.

(4) (*b*) Building required for twelve Pupil-Teacher Centres (existing buildings being duly utilised), say, £1,500 apiece—£18,000: annual interest at three per cent., subsequently decreasing, £540; repayment in 30 years (annually), £600; total, £1,140. Grand total cost, £47,473.

Note.—It is not easy as yet to say how many pupils should be assigned to existing schools, nor what the cost of the necessary additions would be. The average cost of building and equipping secondary day schools, including laboratories, varies from about £25 to £35 per pupil, the latter figure being necessary if the new building regulations for secondary schools issued by the Board of Education are to be carried out.

INCOME.—Against this must be set Government grants.

Under the new Regulations the Local Authorities will be paid the miserably inadequate sum of £3 per annum for each pupil-teacher attending a Centre.

Seven hundred and eighty pupil-teachers completing their first and second years respectively, £2,340.

Pupils attending secondary schools will earn not less than £2. In the case of schools already existing, this grant would probably, as at present, be appropriated to the school.

In the case of new schools established by this Committee the grant would be applicable in reduction of the loss on each pupil—say, 3,600 (for very many would not earn the grant), at most, £7,200. Total cost, £9,540.

NET ANNUAL COST.—The net annual cost might thus be estimated at somewhere about £38,000, but, of course, there would be the risk of considerable additional loss.

SUMMARY OF THE FUNDS AT THE DISPOSAL OF THE COMMITTEE FOR HIGHER EDUCATION.—The higher education fund is supplied

from two sources—(*a*) the Customs and Excise Grant ("whiskey" money), averaging about £17,000 a year; (*b*) a rate not exceeding twopence in the pound, under the Education Act, 1902, which would, if fully levied, bring in about £31,000 a year.

The "whiskey" money, however, is at present fully appropriated, and, even if the amount of ordinary county scholarships were reduced, the total expenditure under this head is less than £3,000 a year. Furthermore, we have for the current session undertaken, and shall obviously in future be compelled to undertake, a large portion of the expenses of evening schools, amounting to not less than £4,000 or £5,000 a year. The institutes throughout the county are justly crying out for increased grants. The need for training of teachers in general, both elementary and secondary, is very great, and the establishment of a very considerable subsidy to a training college for the county is a step that would at once be urged upon us by any educational adviser whom we might consult.

Thus, the annual grant—"whiskey" money—is all or nearly all allotted. Out of the twopenny rate we shall have only some £27,000 at our disposal when the evening schools are paid for. (This year we are meeting them out of a balance due chiefly to an accelerated payment of the "whiskey" money.) If this £27,000 were wholly absorbed by the scheme . . outlined, we should have a deficit of £11,000 to meet before we could spend a halfpenny on other projects of equal or of even greater importance.

Who should Pay for the Schools?

The total cost of the scheme to the county at large might, however, be decreased to the extent of some £4,500 a year by the above consideration.

It is obvious that it would be unfair to charge the initial cost of building schools and Pupil-Teachers' Centres upon the remoter rural districts, which would not be able to send pupils or pupil-teachers to them, or at most would send only a few from their outskirts, or to those urban districts which have already incurred the expense of erecting suitable buildings for themselves. Probably 75 per cent. of the cost would have to be charged to the districts actually served, as is the case with elementary schools. In cases where appropriate buildings have already been erected, these would, without need of further expenditure, be used by the district that had paid for them. A proportionate contribution might be levied from such adjacent districts as had pupil-teachers or children attending these Centres or schools and had not paid any of the initial cost.

Control of Schools and Centres.

This would probably be delegated to some extent to local committees, but it is indispensable that sufficient central control should be retained to secure a fairly uniform standard of aim and of efficiency. The appointment of the head-teacher, whether master or mistress, should be retained absolutely by the Education Committee.

Staff and Payment of Secondary Teachers.

As many other authorities will soon be starting new schools, it will obviously be difficult at first to secure adequate secondary teachers, but their appointment should probably be left in the hands of each head-master or mistress. One thing is quite certain; it is not the least use for this Committee to enter on the expense here suggested unless sufficient money is spent upon the teaching staff. The salaries at present given to assistant-teachers in the secondary schools in Staffordshire are much too low, and unless a fair proportional wage can be offered to teachers who have incurred the expense of a good secondary and university education and desire to remain in the positions they are offered, it is vain to look for any real improvement either in secondary schools or in elementary teachers.

General Considerations.

. . . The foregoing report is based upon three hypotheses :—

(1) That one boy in ten and one girl in five among the ordinary present and future secondary school populations, apart from the special county pupil-teacher candidate scholars, will hereafter become pupil-teachers;

(2) That the amount of such ordinary secondary school population can be more than doubled by the addition of suitable schools and increased accommodation in those already existing;

(3) That these schools, new and old, can be kept sufficiently full to be run at no greater loss than I have suggested.

I can hardly believe that any of these conditions are likely to be met to anything like the full extent for some years to come. The estimates of wastage of teachers, scholars and pupil-teachers and of the cost of building and maintenance, I believe, moreover, to be on the whole understated.

Conclusion.

The whole scheme of the Board of Education is . . . a splendid attempt to deal with a question which has never yet been really faced in England—the proper education and training of teachers

for elementary schools. If it were financially practicable, the scheme as proposed would go far to provide such training up to the date of the entry of the fully-qualified pupil-teacher into the training college. It would, moveover, greatly widen the area from which elementary teachers are drawn, and widen it in the right direction, for it would tend to draw more upon the professional and the better-educated classes, whose children go as a rule to secondary schools.

As matters stand . . . the financial burden on the county is too great, but I most earnestly hope that a way out will be found not by any weakening of the new Regulations but by a greatly-increased grant from the Treasury.

The resolution passed by this Education Committee, on December 19th, goes immediately to the point, stating that the Committee are of opinion that it is impossible to deal in a satisfactory manner with the preparation of pupils who will enter the teaching profession and with the instruction of pupil-teachers unless at least three-quarters of the expense be met by grants from the Treasury, and that no satisfactory solution will be arrived at unless it be rendered obligatory by Statute for each Authority for Higher Education to provide, either by itself or in conjunction with neighbouring Authorities, for the training of a number of pupil-teachers proportionate to the number of children on the books of the elementary schools within its area.

Unless 75 per cent. of the cost, as in the case of training colleges, be thus granted by the Treasury . . . it is inexpedient to attempt to carry out the scheme as a whole in this county, at any rate for the present. Some three or four new Centres and schools and a greatly reduced number of special scholarships will then be all that it is advisable immediately to undertake. If it be asked how we can abstain from carrying into effect the scheme of the Board of Education . . . most of the other authorities will be driven to take a similar course, unless suitable financial relief be afforded. If a Government grant of £28,000 a year or 75 per cent. of the cost were made, . . . it would be the manifest duty of the county to find the remainder.

* * * * * *

APPENDIX.

It may be convenient to give a conspectus showing the ages and dates at which the various changes effected by the new Regulations for pupil-teachers will come into force.

Scheme of Education Proposed for Pupil-Teachers by the New Regulations.

Age.	They will be educated in	Whole or Half-Time.
Until they reach 14...	Secondary / Higher Elementary / or / Elementary Schools	Whole-time.
From 14 until 16...	Secondary schools (with or without Pupil-Teachers' Centre attached)	Ditto.
	or / Preparatory classes at Pupil-Teachers' Centre	Ditto.
From 16 until 18...	Pupil-Teachers' Centre	Half-time.

Calendar of Successive Changes in Regulations for Pupil Teachers.

1904. On January 1st.—Admission of pupil-teachers on present conditions (which will endure until August 1st, 1905).

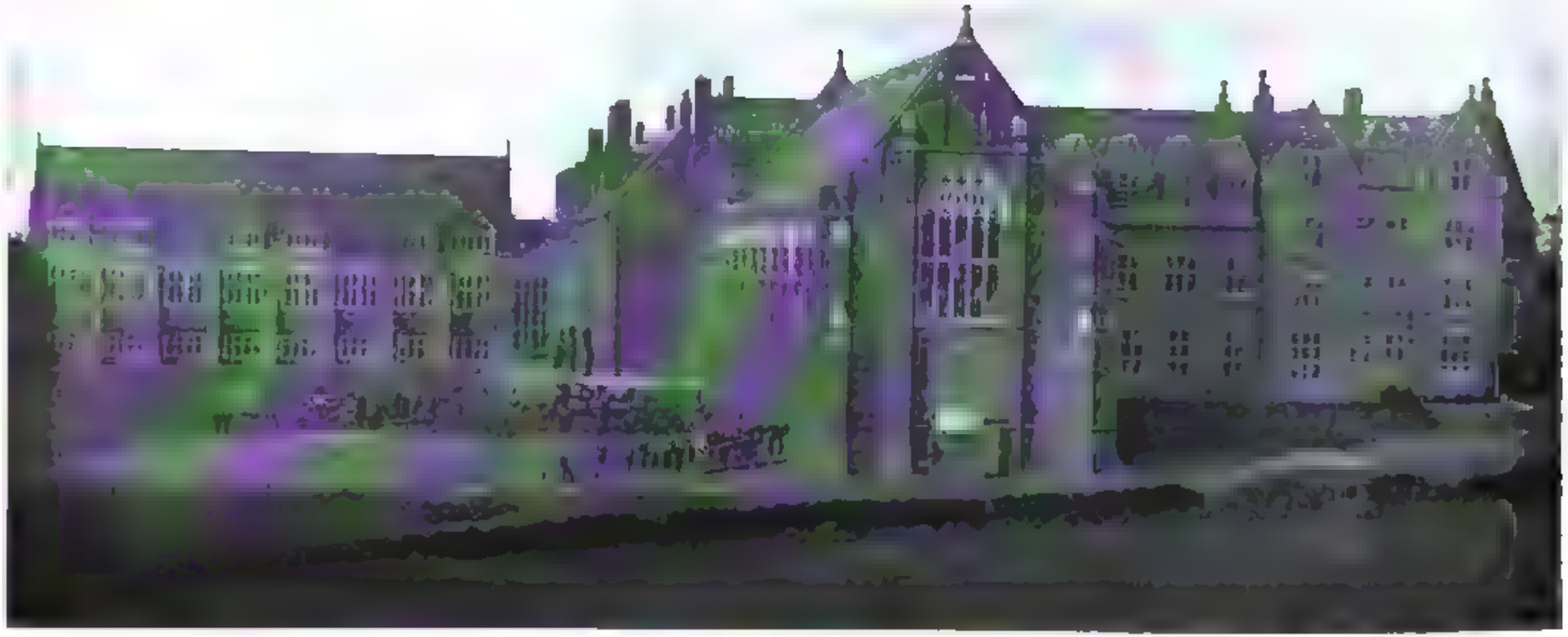
On August 1st.—Admission of pupil-teachers not under 16 (15 in rural districts) on terms of 1904-5 Code. After this date no more probationers will be admitted.

1905. On and after August 1st.—Admission of pupil-teachers not under 16 (15 in rural districts) for one or two years only (three in rural districts).

All probationers to be discontinued.

No pupil-teachers to serve in public elementary schools more than half-time. They will be required to receive half-time instruction in Pupil-Teachers' Centre (or alternative proposals).

After this date no evening class instruction will be reckoned for instruction of pupil-teachers, except with special sanction of Board of Education.



ELLESMERE COLLEGE, SALOP (VIEW FROM THE SOUTH-EAST). (*See page* 53.)

III.—LOCAL INQUIRIES RESPECTING SECONDARY SCHOOLS IN ENGLISH COUNTIES.

(*A*) SHROPSHIRE.

PRELIMINARY REPORT ON SECONDARY SCHOOLS.

By W. H. Pendlebury, M.A., F.C.S., Secretary for Higher Education to the County Council of Salop.

The Difficulties of an Inquiry.

The existing provision for secondary instruction in England has hitherto been furnished chiefly by (*a*) endowed grammar schools, (*b*) by proprietary schools established by religious bodies or public companies, (*c*) by private enterprise. An inquiry instituted by the Education Department in 1898 with a view to ascertain the number of pupils in public and private secondary and other schools in England, not being public elementary or technical schools, resulted in a report to Parliament which was very significant of the varied and incoherent character of the provision made for secondary education. The Report says :—

"As there is no general system of inspection applying to all the schools alike, it is not possible with any approach of accuracy to classify the whole number of schools, private and public, into grades of educational service. Nor is there in existence any list or register of these schools which pretends to be exhaustive. The whole subject is exceedingly obscure, and has never been brought within the scope of comprehensive statistical inquiry."

These remarks indicate some of the difficulties which have been met with in the prosecution of the inquiry, the results of which appear in the following pages :—

The Definition of a Secondary School.

At the outset of the inquiry it is difficult to accurately define a secondary school and to draw a hard and fast line separating truly secondary schools from others having much the same

age limit which are little less than alternative to the public elementary schools, and at which the pupils complete the education they receive without proceeding afterwards to a higher school.

It might be perhaps considered sufficient to take all schools which are not public elementary schools as being secondary schools and to count the pupils in them who are over twelve as receiving a secondary education, and those pupils who are under twelve as receiving an elementary education, though they are in secondary schools. There is the difficulty to be met, however, that there exist several preparatory schools, whose pupils are being prepared for the greater public schools, where the education is of the secondary type, though the pupils are under twelve. To meet this difficulty pupils in the latter schools have been counted as receiving secondary education in spite of their age, and in the case of other schools the age limit for secondary education has been considered to be twelve and over.

Numbers of Pupils in Secondary Schools.

General Estimates and Comparisons.—When the number of pupils receiving secondary education has been more or less satisfactorily ascertained, the next point to be considered is whether the educational needs of any area are being satisfactorily met. To discover this it is necessary to know what is the average number of children requiring secondary education. It is obvious that this must vary with the character of the districts and the occupations of the inhabitants. It is, therefore, not surprising to find that the estimates formed are most varied and conflicting. This fact is shown by the following list which gives the estimates* formed by the authorities named (in units per 1,000 of the population :—Dr. Farr (Schools Inquiry Commission Report, 1867) —boys, 12·55 ; Mr. Richmond (Schools Inquiry Commission Report, 1867)—boys, 12·28 ; The Commissioners—in towns, boys, 16, in country districts, boys, 10 ; Sir Henry Longley—boys, 9·3, girls, 5·4 ; Dr. Fitch—boys, 7·5, girls, 5·5 ; average, boys, 11·2, girls, 5·45.

The actual number of boys and girls (per 1,000 of the population) receiving secondary education in England, however, falls short of the average calculated above. The report of the Educational

* Most of these figures are taken from the report upon Secondary Schools in Staffordshire by Mr. Graham Balfour, M.A., published in "The Record," October, 1903, pp. 507-10.

Departmental Commission of 1898 states that in the whole country the number of boys receiving secondary education is 5·4 per 1,000 of the population and of girls 4·5 per 1,000.

The following are the numbers of children per 1,000 of the population at present under secondary instruction in the localities named*:—London (Lewisham)—boys, 9·45, girls, 10·08, total, 19·53; London (Shoreditch)—boys, 3·4, girls, 2·8, total, 6·2; Rochdale—boys, 2·5, girls, 4, total, 6·5; Bury—boys, 4, girls, 4; total, 8; Bolton—boys, 3, girls, 3, total, 6; Oldham—boys, 1, girls, 1, total, 2; Wigan—boys, 4·5, girls, 3·5, total, 8; Ashton—boys, 3, girls, 2, total, 5; Staffordshire—boys, 1·97, girls, 1·38, total, 3·35; Cambridgeshire—boys, 2·9, girls, 2·5, total, 5·4; Hunts—boys, 3; Norfolk—boys and girls, total, 3.

Though not expressly stated, many of the above numbers represent, no doubt, only the children attending endowed schools.

THE POSITION IN SHROPSHIRE.—By comparison with the averages of the number of children who ought to receive secondary education and also with those who are actually receiving such education, it is possible to form some rough idea of the state of secondary education in Shropshire, and it is to be feared that the result is not satisfactory. It appears that in many instances the demand has not merely to be supplied but to a certain extent to be created. The very limited funds at the disposal of the Local Education Authority render it not unlikely that a long time must elapse before the work can be satisfactorily accomplished.

The total number of pupils attending schools other than elementary, according to the returns obtained, are given in the following table:—

	Under 12.	12—16.	Over 16.	Total.
Boys.				
Grammar schools	106	309	60	475
Non-endowed schools ...	176	417	73	666
At girls' schools	237	38	—	275
	519	764	133	1,416
Girls.	587	612	153	1,352
Boys and girls together ..	1,106	1,376	286	2,768

The totals of all ages give an average of 5·9 boys per 1,000 and 5·6 girls per 1,000 of the inhabitants of the county attending secondary schools. When, however, it is considered that a large number of the pupils enumerated above come from outside the

* See footnote on p. 50.

county, and when the age qualification is taken into account, it will be seen that the numbers above obtained must be materially reduced.

Taking these points into consideration, the following numbers are arrived at (per 1,000):—Shropshire boys, 2·69; Shropshire girls, 3·18; total, 5·87. This total falls far short of the theoretical number, 16·65 per 1,000, and also below the average actual number, 9·9 per 1,000, obtained from a survey of the whole of England.

Inquiries were addressed to all the secondary schools lying on the borders of Shropshire, but in other counties, with the object of discovering how many Shropshire children are attending such schools. From the results obtained it was found that 34 boys and six girls so attend. Shropshire boys form 4·7 per cent. of the pupils in these schools, and the girls form 2·47 per cent. of those attending.

The Condition of Boys' Schools.

There are in the county ten endowed grammar schools, one of which, the Shrewsbury School, being a non-local great public school, has not been included in the returns considered in this report.

Of the nine endowed gramm ar schools under consideration, four —Bridgnorth, Cleóbury Mortimer, Wem and Whitchurch—are working under the Scheme B of the Board of Education and are regularly inspected by the South Kensington Authorities and are in receipt of grants from the Board. In order to bring the other grammar schools into a satisfactory state of efficiency, pressure should be put upon them to induce them to place themselves under the Board. Before this can be done, however, it will be necessary to see that they are provided with laboratory accommodation for the study of chemistry and physics. The present accommodation is inadequate in most cases and the equipment is poor.

There are altogether 475 boys under instruction in the nine endowed schools. The largest number is at Bridgnorth (83) and the smallest (6) at Market Drayton. Of the 475 pupils, 106 are under twelve, 309 are between twelve and 16, and 60 are over 16. The proportion of day boys to boarders is about three to one, and the proportion of Shropshire boys to those whose parents live outside the county is about two to one. Of the previous education of the pupils, it is satisfactory to find that 46·7 per cent. have come from elementary schools. About six per cent. of the whole number of pupils pass on to some university or college of university rank. The total number of boys' schools having no pupils over 16 is

eight, giving a percentage of 36·3. In the whole country the percentage is 28·2.

Of the non-endowed boys' schools in the county, returns have been obtained from 14 institutions, one of which is a proprietary school of a denominational character (Ellesmere College) and ranks with the best of the grammar schools in the efficiency and character of the education given (see illustrations on pp. 48 and 58). The same remarks apply with equal force to one of the private schools (Wellington College), which, for purposes of comparison, is placed in a class by itself and cannot in justice be massed with the other private schools. There remain then twelve private schools in the county to be considered. Of these, four are preparatory schools charging high fees and aiming at fitting their pupils for the larger public schools in the country. Eight other schools are giving secondary education of a less ambitious character.

CURRICULA.—The following figures show the percentages of boys studying different subjects and afford a comparison of the different classes of schools (Wellington and Ellesmere Colleges are considered with the endowed schools) :—

Grammar Schools, Etc.—(i.) Latin, 55·6 ; (ii.) Greek, 8·37 ; (iii.) French, 86 ; (iv.) German, 19·7 ; (v.) chemistry, 47·7 ; (vi.) practical chemistry, 37·7 ; (vii.) physics, 42·5 ; (viii.) practical physics, 29·9 ; (ix.) agriculture, 11·3 ; (x.), mathematics, 73.

Private Schools.—(*a*) Public Preparatory :—(i.) 93 ; (ii.) 22 ; (iii.) 93·2 ; (iv. to ix.), 0 ; (x.) 56·2. (*b*) Other Private Schools :—(i.) 41 ; (ii.) 1 ; (iii.) 90·5 ; (iv.) 0 ; (v.) 21·5 ; (vi.) 5 ; (vii.) 3·5 ; (viii.) 0 ; (ix.) 1·5 ; (x.) 79·5.

From the above, it will be seen that French is one of the most favoured subjects, whilst Greek and German are little studied. Science, as might be expected, is little taught in the private schools. Mathematics, other than arithmetic, seems to meet with a fair share of attention.

TEACHING STAFF.—The following Table gives the qualifications of the teaching staff :—

	GRAMMAR SCHOOLS, ETC.	PRIVATE SCHOOLS. (*a*) Preparatory Public.	(*b*) Other.
Graduates.....	33	11	4
Matriculated ...	8	—	5
A.R.C.S.	2	—	—
A.R.C.A.	1	—	—
Certificated	7	1	2
Others	13	9	6
	64	21	17

In the grammar schools (Ellesmere and Wellington Colleges being included) the graduates form 51·5 per cent., in the private preparatory schools 52·4 per cent. and in the other private schools 21·2 per cent. The average for the whole country is 45·2 per cent., according to the Secondary Schools Commission returns.

The proportion of teachers to pupils in the grammar schools is one to twelve, in the private preparatory one to 6·6, and in the other private schools one to 13·5. The average proportion for the whole country, according to the same report, is one to 13. From the results obtained from the Salop returns the average is one teacher to 10·7 pupils, so that the Salop schools are not understaffed as a rule.

Classification of Pupils.—The next Table gives a summary of the ages of the pupils under instruction in the nine endowed grammar schools (boys'), distinguishing those whose parents live within the county from those outside.

Pupils from the county	under 12.....	90	Pupils from outside the county	under 12	16
	between 12-16	194		between 12-16	115
	over 16	39		over 16.....	21
		323			152
Total.....		475			

These figures may be stated in percentages of the total number of pupils attending the grammar schools:—

Ages of Pupils.	From the County.	From Outside the County.	Total.	Average for whole of England.
Under 12	19·	3·4	22·4	40·6
12—16	40·8	24·2	65·	50·
Over 16.....	8·2	4.4	12·6	9·3
	68·0	32·0	100·0	

There are, therefore, less boys under twelve and over 16 than is the average throughout England, but there are more between twelve—16.

A comparison of the proportion between the number of boarders and day boys in the grammar schools gives the following result:—

Boarders ...	51·8%	Shropshire ...	35·7
Day boys ...	48·2	...	64·3

Whole of England.

Fees.—In the following Table is given an approximate summary of the fees (annual) charged in the various endowed and private schools in the county:—

Endowed Grammar Schools.—Day Boys.—£4, £5 and £6, one school each; £8, four schools; £9 and £10 to £12, one school each; average, £7 10s. per annum.

Boarders.—£30, two schools; £40 to £45, three schools; £50, three schools; average, £42 per annum.

Private Schools.—Day Boys.—Below £10 per annum, six schools, 50 per cent.; £10—£15, three schools, 25 per cent.; £15—£20, two schools, 16·6 per cent.; £20—£25, one school, 8·3 per cent.

Boarders.—£20—£30 per annum, two schools, 20 per cent.; £31—£40, one school, ten per cent.; £41—£50, three schools, 30 per cent.; £61—£70, £71—£80, £81—£90 and over £100, one school each, ten per cent.

The average cost, in the way of upkeep and salary, to a school giving a modern secondary education, is estimated to be £12 10s. per pupil. Where the fees charged are less than this, the difference has to be met out of endowments or grants, or the school cannot do its work efficiently.

On p. 61 will be found a Schedule giving full particulars of endowed grammar schools.

The Condition of Girls' Schools.

When we come to consider the question of the education of girls we are met with the fact that there is only one non-private girls' school in the county—the Shrewsbury High School for Girls, belonging to the Public Day Schools Company (see illustration on p. 57). The work done at this school marks it off sharply from most of the other girls' schools in the county.

Classification of Pupils.—The number of girls' schools sending in returns is 44, and of these no less than 32 take also boys under twelve. The number of boys thus attending is 237; one of the schools might be regarded as a mixed school, for it takes in addition to boys under twelve a number of boys (38) from twelve to 16 years of age.

The total number of girls under instruction is—under twelve years of age, 587; twelve—16 years, 612; over 16 years, 153; total, 1,352.

There are 18 girls' schools possessing no pupils over 16, which is 41 per cent. of the whole. The Education Department Inquiry Commission reported that the average of girls' schools throughout the country having no pupils over 16 is 28·3.

Curricula.—To gain an idea of the course of education in the girls' schools the following is given:—total number of schools considered, 43. Of these, French is taught in 31 schools; Latin in 16; German in eight; mathematics in 19; science (various) in eight; practical science in two.

The *percentages* of the pupils taking the above subjects are shown below. In order to have some standard of comparison, the percentages for the Shrewsbury High School for Girls are also given. It may thus readily be seen how far the average of girls' schools in the county is in agreement with a modern system of girls' education.

	French.	Latin.	German.	Greek.	Mathematics.	Science.	Practical Science.
Shrewsbury High School for Girls.	90·2	63·9	18·8	3·7	56·4	75·2	75·2
Salop Private Girls' Schools.	56·9	7·5	2·7	—	23·8	10·5	·5

ACCOMMODATION.—Another point worthy of consideration is the accommodation provided in the way of class rooms. It is obvious that to obtain the best results, class rooms should be as airy as possible. The ordinary rooms of a house are apt to become stuffy and unhealthy when a large number of persons are congregated in them for some time. From the returns obtained, in 58 per cent. of the girls' schools the class and school-room accommodation is part of the dwelling-house.

CORRELATION.—It is interesting in the next place to discover how far the girls' schools serve their purpose of passing on the pupils from elementary schools received by them to places of higher education. It is found that, of the total number of girls in the Shropshire private schools, 15 per cent. have come from the public elementary schools. Only one per cent. passes on to places of higher education. It will be remembered that the proportion found in boys' schools is much greater.

TEACHING STAFF.—The number of teachers in the girls' schools in the county is 202. The qualifications they possess are shown in the following way: university trained, eleven, 5·4 per cent.; senior local certificate, 25; certificated teachers, 39; minor exams, 41; qualified by experience only, 86; total, 202.

The average number of university trained teachers throughout the country is about twelve per cent., so that Shropshire falls much below the average in the number of its university trained female teachers. The proportion of teachers to pupils is one to 6·7. The average throughout England is one to 6·9.

FEES.—The fees at the girls' (*private*) schools are summarised, approximately, as follow:—

Day Scholars.—Below £3, £9 and £12 per annum, two schools each, 5·9 per cent.; £3 per annum, eleven schools, 32·3 per cent.; £4, £7, £11, £14 and £16 per annum, one school each, 2·9 per

THE HIGH SCHOOL FOR GIRLS, SHREWSBURY. (*See page* 55.)

LEUCSMERE COLLEGE, SAVOP (GREAT SCHOOL-ROOM). (*See page* 53.)

cent.; £6 per annum, seven schools, 20·6 per cent.; £10 per annum, five schools, 14·7 per cent.

Boarders.—Below £10 per annum, two schools, 6·9 per cent.; £20 per annum, eight schools, 27·6 per cent.; £30 per annum, twelve schools, 41·4 per cent.; £40 per annum, six schools, 20·7 per cent.; £50 per annum, one school, 3·4 per cent.

The average cost to the school, in the way of upkeep and salary, for each girl pupil throughout England varies from £10 to £12. As many girls' schools charge fees less than these sums, such schools must be conducted to the detriment either of the teacher or of the pupil.

General Comparative Summaries.

In the following Table the schools are arranged according to the number of pupils in attendance :—

No. of Pupils.	Boys' Endowed Schools.	Boys' Non-Endowed Schools.	Girls' Schools.
Below 10	1	1	2
11 to 20	1	1	11
21 — 30	0	4	12
31 — 40	0	4	7
41 — 50	0	2	3
51 — 60	3	0	2
61 — 70	2	0	3
71 — 80	1	0	0
81 — 90	1	0	3
Over 100	0	2	1
	9	14	44

The following summary shows the distribution of the schools over the different Registration Divisions of the county, and from the population there is calculated the average number of children who, according to the Educational Commission Report, should be receiving secondary education, viz. :—11·2 per 1,000 of the population for boys and 5·45 per 1,000 for girls. In an actual fact it should be remembered that the average throughout England is only 48 per cent. of this number for boys and 82 per cent. of the theoretical number for girls.

On a comparison of the results of the Educational Census, it will be seen that the percentages nowhere reach this average of 48 per cent. of the theoretical number for boys and 82 per cent. for girls; only children residing in Shropshire are considered in the Table.

Registration District.	Population.	No. of Schools.		No. of Pupils who should (in theory) attend Secondary Schools.		Actual No. attending in *percentage* of the theoretical.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Atcham	49,440	3	10	553	269	20	46
Bridgnorth	14,485	2	2	162	79	29	31
Church Stretton ...	5,295	2	1	59	28	10	17
Cleobury Mortimer	8,870	1	1	99	48	20	18
Clun	8,491	0	0	95	46	0	0
Drayton	13,849	1	2	155	75	2½	41
Ellesmere	14,486	1	2	162	79	14	12½
Ludlow	18,373	2	2	201	100	25	13
Madeley.....	23,845	1	4	267	130	8½	12½
Newport.....	13,562	1	2	152	74	39	57
Oswestry	28,262	5	8	317	154	23	64
Shifnal	11,801	1	1	132	64	4½	23
Wellington	25,854	2	4	290	141	17½	55
Wem	10,415	1	1	117	57	47	5
Whitchurch	12,060	1	3	135	66	25	68

Conclusions.

The results of this inquiry indicate that there is urgent need for the reorganisation of secondary education in the county. The provision for the secondary education of girls leaves much to be desired. The education of boys, however, is in a more satisfactory condition, but even here there is room for great improvement. It is intended to make suggestions and recommendations with this object in view in a later report.

PARTICULARS OF ENDOWED GRAMMAR SCHOOLS (BOYS') AND NON-ENDOWED SCHOOLS.

SCHOOL.	NO. OF BOYS.				County Council Grant etc.	Science and Art Grants.	Endowment.	Scholarships, etc., attached to or given by School.	FEES.		Masters or Mistresses.	Graduates.	Laboratories.	Class-rooms.	PUPILS.	
	Under 12	12–16.	Over 16.	Total.					Day boys.	Boarders.					From Elementary Schools.	At University Colleges.
Bridgnorth	35	39	9	83	£100	£78	£48	3 of £50.	£9 9s.	£24 to £36 and tuition	8	4	Foster Institute.	3	25	5
Cleobury Mortimer*..	8	40	6	54	£77	£105	£257	6 Winwood, 1 Leaving £20.	£4 4s.	£29 4s.	4	3	2	2	21	3
Ludlow*	14	30	8	52	£50	..	£666	12 of £10 (10 for Elementary Pupils)	£6 to £10; Greek £3 extra.	£45 and tuition.	4	2	Chemical (small).	4	26	2
Market Drayton	2	4	..	6	..	..	£30	..	£8 8s.	..	1	1	..	1	6	1
Newport	13	40	4	57	£50	..	£800	4	£3 to £6	£50	4	3	2	4	32	..
Oswestry	5	50	13	68	..	£30	£190	Reduction of Fees in special cases, 1 Leaving of £50.	£10 10s. to £12 12s.	£35 to £50	5	4	Small chemical.	4	14	14
Wem	13	56	9	78	£50	£42	£205	9	£5	From £31 10s.	6	2	Chemical (physics).	3	67	..
Whitchurch	11	44	11	66	£50	£124	£613	8 Foundation of £10, Talbot Ex., Excusing Fees, 1 Leaving of £35	£6 18s.	£36 and tuition.	6	4	2	3	33	2
Worfield	5	6	..	11	..	..	£100	..	£8	£40	1	1	..	1	1	..
Tot'ls (End'w'd Sch'ls)	106	309	60	475	£377	£379	£2,909	..	..	..	39	24	9	25	46·7%	6·4%
Ellesmere College* .. (Proprietary, Public Company, Denominational).	21	129	33	183	..	..	..	9 Foundation, 3 Leaving of £15 15s.	£7 10s	£26 5s.	13	5	Chemical (physics).	6	97 (53%)	10 (5·4)
Wellington College... (Private, no endowment).	29	73	17	119	..	..	..	Help in deserving cases.	£18 18s.	£63 to £73 10s.	13	7	2	7	18 (15·1%)	12 (10%)
Girls' High School, Shrewsbury*..... (Public Company)	6 boys 55 girls.	51	21	133	..	..	..	A few.	£6 6s. to £16 10s.	£47 5s. to £63	15	6	1	9	9 (6·7%	6 (4·5%)

* Illustrations of these schools are given on pp. 48, 57, 58, 73, 87, 101, 102, 114.

(*B*) WORCESTERSHIRE.

THE INSPECTION OF ENDOWED AND AIDED SCHOOLS.*

In the course of a general review of the work of these schools, your Inspectors were struck by two points:—(1) the decay, amounting in some cases to the extinction, of Latin; (2) the inefficiency of the teaching of French and German.

The Teaching of Latin.

The decay of Latin is doubtless in accordance with the trend of recent educational reforms in England, but it is most instructive to note that while our reformers at home are constantly holding up for our admiration and imitation the examples of the United States of America and Germany, the Educational Authorities of these two countries are increasingly insisting on the importance of Latin, and are devoting more and more time and attention to its study. This statement is so paradoxical that it must be substantiated: accordingly I quote the following passage from a most valuable address entitled 'Efficiency in Education,' given last November in Glasgow, by Prof. G. G. Ramsay.

FACTS FROM AMERICA AND GERMANY.—After stating that a Committee of twelve experts from all parts of the Union had been engaged for some years in collecting exact information as to the number studying the various subjects in the secondary schools of America, with the ulterior view of laying down, if possible, a uniform course of instruction in Latin and Greek to be pursued in all classical schools; that this Committee have had the co-operation of the U.S. Commissioner of Education; and that their figures are vouched for as correct, the Professor goes on as follows:—"Taking the whole of America, the Committee report that the number learning Latin in the secondary schools has increased from 100,144 in 1890 to 314,856 in 1899-1900; those learning Greek from 12,869 to 24,869. Now the total number of scholars in all the secondary schools of the country in 1899-1900 was 630,048; so that exactly *one-half* of the total number of scholars are learning Latin; and that not as a mere smattering, but in solid continuous courses pursued for four or five years, and

* Report (slightly abridged) on the inspection of twelve secondary schools undertaken by Messrs. Herbert Millington, M.A. (the Author) and E. C. Musson, M.A., on behalf of Worcestershire Higher Education Sub-Committee, submitted to the County Education Committee, 28th November, 1903.

in a considerable number of schools for six years . . . ." The great bulk of these scholars are not preparing for a university career: they are preparing for the ordinary life of an American citizen. In the last year for which there are returns, the year 1899-1900, the total number of secondary scholars, as we have seen, was 630,048, out of whom 314,856 were learning Latin. But of that number only 61,517 were preparing for a college or a higher scientific school; no less than 223,349 scholars were learning Latin as an instrument of pure schoo culture, without any intention of continuing the study at a university. "What does this mean? It means that the middle classes in America are finding out that the most fruitful, useful instrument for training the mind for ordinary commercial life is to be found in the Latin language. The only subject which equals Latin in point of numbers and slightly overtops it is algebra; modern languages and geometry are far behind. Physics have only 118,936 scholars, chemistry only 50,431; not because these subjects are not finely taught and equipped in America, but because they are reserved for a later age and taught in special institutions suitably equipped for the purpose. For the men of science in America no doubt hold, like many of our foremost scientific men in this country and in Germany, that they would rather begin to teach science to minds furnished with a sound general education suitable to their age, with no knowledge of science at all, than have to deal with minds imperfectly trained, unable to take in scientific conceptions, which have sacrificed education proper for the sake of a so-called training in science unworthy of the name."

Such is the voice of America, the most practical country in the world; and Germany's verdict is the same. . . . . The following passage from the address will suffice:—"Our public speakers are for ever pointing to Germany, and especially to Prussia, as our educational model. Are they at all aware of the long and exacting course of linguistic study demanded in all secondary schools in Prussia? of the comparatively limited range of the subjects there taught? of the great prominence given to Latin and Greek in the *gymnasien*, and to Latin in the *real-schulen*; and of the comparatively limited attendance and unsatisfactory results as yet produced in the non-classical schools? In the year 1898-1899 there were in all 152,019 scholars in Prussian secondary schools. Of these only 39,323 were in non-classical schools. Of the remainder no less than 83,272 scholars were in the *gymnasien*, in which a systematic course of nine years' duration is carried out, including both Greek and Latin; and 20,956 were in the *real-gymnasien* which have also a course of nine years, including Latin,

but not Greek. In both of these classes of schools, Latin is taught throughout the entire course. . . ."

"There are also inferior schools in which exactly the same courses are prescribed as in the above mentioned, but in which scholars leave at the end of the first six years of their course, instead of carrying on for the whole nine years. These last have only an attendance of 35,720. These figures exhibit the secret of German educational success. They show that, out of a total of 152,019 scholars in secondary schools, no less than 116,299 are pursuing a systematic course of education for nine years in succession; and there are none whose course extends over a period of less than six. How can we expect to produce equal results with boys about half that time at school? in schools distracted by having to find room for more subjects than they can teach? . . . . "

"Let me briefly show the relative amount of time given to the various subjects in the curriculum of a Prussian *real-gymnasien*"—the school which corresponds to the ordinary grammar school in England. "At any one time there are nine separate classes—each representing one stage in the nine years' curriculum—being taught at once. If we sum up the total number of hours worked in any one week in all the nine classes taken together the total comes out as follows:—

Latin	has a total of	49	hours	per	week.
Mathematics	have	,,	,,	42	,,	,,
French	has	,,	,,	29	,,	,,
Natural science	,,	,,	,,	29	,,	,,
German	,,	,,	,,	28	,,	,,
Religion	,,	,,	,,	19	,,	,,
English	,,	,,	,,	18	,,	,,
History	,,	,,	,,	17	,,	,,
Drawing	,,	,,	,,	16	,,	,,
Geography	,,	,,	,,	11	,,	,,
Writing	,,	,,	,,	4	,,	,,

These facts are arresting, and they are germane to the inquiry . . . They show clearly that, while professing to admire American and German educational methods, we are more and more widely departing from them.

CAUSES OF THE DECAY OF LATIN TEACHING.—There are *two* causes of the decay of Latin teaching:—

First Cause and its Suggested Remedy.—The ignorance of middle-class parents in respect of the constituents of a good education, a consequent contempt for the value of schooling generally and a consequent hurry to place their children prematurely "in business."

This ignorance might be combated by the appointment by the County Council of suitable persons to give free lectures on education in various centres. It might be the duty of the Director of Education to submit to the Committee the names of competent and authoritative lecturers.

Second Cause and its Suggested Remedy.—The inability of the schools to provide competent teachers of Latin. This inability arises partly from want of funds and partly from the reaction on the schools of the ignorance and indifference of parents.

It must be stated and insisted on that, with very few exceptions, the masters who teach Latin have no real knowledge of the subject. Most of them have never received any sound classical education at school or university. Their knowledge of the subject represents the minimum required to pass the various examinations of the London University up to the B.A., but not up to the M.A. degree. The language consequently has not been studied thoroughly or *con amore*, but merely from the examinee's point of view, and in conflict with numerous other subjects which he has been taught to regard as more important. No wonder that teachers thus inadequately taught prove inefficient. In only one school, viz., Stourbridge Grammar School, did I come across an assistant-master possessing a first-class degree from Oxford or Cambridge in Classics. The teaching of this master was altogether superior to that of all the others; and it is worthy of notice that his lesson in English literature also was much the best I witnessed. He alone was doing really educative work, and not merely preparing his boys for an external examination.

But there are true and life-giving methods of teaching Latin which are of the highest educational value, and which make instruction in this so-called dead language most quickening in its intellectual potency. To enter minutely into the details of these methods would demand a separate essay, which might be considered beyond the scope of the present inquiry; but if a deputation from your Committee would care to see . . . and hear . . . what may be done in a grammar school, possessing no greater opportunities than several similar schools in Worcestershire, to make the teaching of Latin a living and life-giving educational agency, I would recommend them to pay a visit to the Perse Grammar School, Cambridge, where I will ensure their permission to hear lessons given on the subject, which will convince them of the truth of the position . . .

There should be appointed to every school where Latin is taught at least one classical master of high university distinction and approved teaching capacity, and in his hands should be placed the

entire teaching of Latin from bottom to top, or, at any rate, he should be made responsible to the head-master for the subject, and should be freely consulted in the construction of the curriculum. The objection of the expense thus involved is met by the statement that a scientific re-grouping of the existing schools, such as will be hereafter indicated, would render such appointments quite within the means of the reformed and re-grouped schools.

The Teaching of French and German.

The teaching of these two languages has impressed your Inspectors most unfavourably. Here, as in Latin, the assistant-masters allotted to them are really incompetent to do them justice. There are some exceptions, but they are very few; but special reference must be made to Bewdley School as a brilliant exception. In this little school, possessed of scanty means and slender numbers, we witnessed teaching in French and German which was admirable in quality, and conducted entirely in the foreign language which was the subject of instruction. In no other school was this new and improved method in use, nor were mural pictures employed as a medium for the instruction of beginners.

Even in schools like Kidderminster, where the head-master is an accomplished French and German scholar, the new method has not been introduced, apparently from a fear that boys taught by it would lose marks in the "Locals" Examinations. But, generally speaking, apart from the adoption of new methods, the teaching is lamentably bad and needs radical reform.

SUGGESTED REMEDY FOR IMPROVEMENT.—I would suggest that the County Council should appoint a peripatetic teacher of French and German, whose duty it would be to pay at least one visit a week to each school and give a lesson in French and in German. It should be obligatory on all the masters of the school visited who take any part in French and German teaching to attend this expert's lessons, and he should be authorised to lay down a definite syllabus of instruction and to secure uniformity of method, in consultation with the head-master of each school.

This head-teacher should preferably be an Englishman of good university standing who has studied modern languages abroad. Such men are not as difficult to procure now as they were formerly, and their supply is rapidly increasing in response to the increased demand. The expense of the salary of this teacher could be met, at any rate partly, by a proportionate contribution from each of the schools visited. It may be added that the Surrey County Council have already appointed a peripatetic teacher of modern languages. . . . .

The Award of County Council Scholarships "F"* and the "Locals" Examinations.

It appears to your Inspectors that a considerable amount of money is being annually expended in "F" scholarships which is unproductive, either because the candidate to whom such scholarship is awarded is intellectually unworthy, or because the school which undertakes to educate him (or her) is unfit.

It appears that for the year commencing September, 1903, the sum of £378 is allowed for "F" Scholarships, and that the holders of these are distributed among 13 schools, of which six have not come under inspection, but of the remaining seven, three certainly are not capable of imparting anything in the shape of higher education.

I am aware of the difficulties your Committee have encountered in devising a satisfactory test of the merits of applicants for these scholarships, and in entrusting the selection to the Secretary of the Cambridge Syndicate they have avoided evils which would have attended many other means of selection. But it is contended that in so doing your Committee have (1) strengthened the already strong grip of the "Locals" Examinations on the secondary schools, and (2) that they have not realised the serious educational drawbacks attendant on the general adoption of these Examinations.

A perusal of their syllabus shows that much pains and thought have been given to the form and scope of the three varieties of "Locals," preliminary, junior and senior. But the educational results fail to correspond with the efforts of the devisors. . . . . Papers set in former years are collected; the tendency of questions is studied; books are written and printed providing more or less direct routes to their solution; obligatory subjects are read and re-read with lifeless reiteration to avoid failures; the prescribed minimum, qualifying respectively for "pass," "honours" and "distinction" is exactly ascertained; and all concerned go to work with a will which would be admirable, if the end in view were only right, to secure the highest percentage of results.

To the prevalence of these "Locals" may be attributed the absence in many important schools of higher mathematics from the curriculum, the premature introduction of branches of science and the neglect of the newer system of teaching modern languages; and the result is often seen in boys and girls who have passed one or more of these examinations without having received any real

* These scholarships are similar to those generally known as "Minor" and "Intermediate" Scholarships.

mind-training, and with only a strictly limited knowledge of prescribed portions of prescribed subjects. I am convinced that the best and ablest head-masters are to a certain extent aware of this state of things; but they have hardly any option in the matter: they have started on the race for passes, honours and distinctions, and they believe that to fall behind would be ruinous to their prestige and even existence.

SUGGESTED REMEDY FOR IMPROVEMENT.—If this contention be at all true, it follows that it is a mistake to make the grant of County Council scholarships dependent, exclusively at any rate, on the results of these examinations; they should be supplemented by a *viva voce* examination, conducted by an educational expert, of each candidate individually. Such an examination so conducted is the best means . . . whereby ability can be differentiated from knowledge and promise from performance. It is not the amount of knowledge that a boy or girl has at 13 or 14 years of age that is all-important; it is the quality of mind that he or she shows, and the promise of intellectual development which is indicated: these are the factors which should determine the election or rejection of a candidate for the receipt of public money. In this connection, it is of supreme importance that the person appointed to conduct the *viva voce* examination should be thoroughly capable, large-minded and deep-seeing. It is to be borne in mind that I do not advocate an *ad hoc* written examination: this would only supplant one system by another which would soon be liable to the same abuses. . . . It follows, of course, that the examiner should not be the same every year.

Schools which receive County Council scholars should in all cases be inspected biennially, in certain cases annually.

The Relative Positions of the Schools Inspected.

The schools inspected may be graded as follow:—

BOYS'.

(1) Stourbridge Grammar School—*Facile princeps.*
(2) Kidderminster Grammar School.
(3) Bewdley Grammar School. } Equal.
Hartlebury Grammar School. }
(4) Bourne College, Quinton. }
Hanley Castle Grammar School. } Equal.
Wolverley Grammar School. }
(5) Halesowen. } Very nearly equal.
(6) Evesham Grammar School. }
(7) Deacle's School, Evesham, is not a secondary school.

GIRLS'.

(1) Kidderminster High School for Girls corresponding in standard to (3) under boys' schools.

The Future of the Schools.

The question of the future of these schools is one beset with difficulties, and any suggestion which may be offered must inevitably meet with considerable criticism, and in some cases arouse fierce opposition.

In thinking over this question my mind always starts from and reverts to the one great crux—the future of Wolverley School; what is to be done with it? This question is complicated by the fact that the decision must turn not so much on its past history, but, in view of its great revenues in the not remote future, its prospective possibilities.

THE KIDDERMINSTER GROUP.—At first sight it would seem ideally the best course to take the four schools constituting the Kidderminster group, viz.—Bewdley, Hartlebury, Kidderminster and Wolverley, and amalgamating their endowments, while earmarking a certain portion of them to the service of boys from each locality, to establish a really great public day school, comprising at least two sides—(1) linguistic and literary, and (2) mathematical and scientific. But the difficulties which confront the execution of this plan are, I think, overwhelming. The local opposition it would arouse would be intense, and it may be questioned whether the merits of the scheme would justify the friction which it would cause. For it would . . . be very hard to find one person entirely competent to direct both sides of a school thus constituted with the necessary ability and impartiality. The probability is that one side or the other would suffer, or that an *imperium in imperio* would be created which would interfere with the harmonious working of both sides.

The Types of Schools Required in the Group.—Before proceeding further I should like to quote once more from Professor Ramsay's address, for in what follows he seems . . . to lay down the true lines on which your Committee should build. . . . He says:—"This varied evidence from other countries and our own seems to me to lead to the conclusion that, in ordering its system of higher education, the nation should aim at equipping and maintaining two main types of school and two only, each appropriate to a particular class of mind and a special range of occupations. In the one type, the backbone of the teaching and the training should be on the linguistic, literary and classical side; in the other, on the scientific side, modern languages being taught in both. The course in the science school should be mainly scientific and

mathematical, the principal hours being reserved for these subjects. The indispensable literary subjects could hold a subordinate place, being taught subject to the fundamental condition that the minds of the pupils were to receive their formative training through science and scientific methods. Similarly, the training in the classical schools should essentially be a training through language, history and literature, such an amount of elementary science and mathematics being added as are indispensable for any man of education. . . . All secondary schools should be encouraged to differentiate into one or other of these types: the attempt to include both sets of subjects in one school will fail to secure the results of either. It results in shallow work and will turn out minds that have been truly instructed in nothing. If it were once recognised that there were these two types of education, with two types of schools to match, offering different courses, but each equally thorough and systematic, much of the confusion and inefficiency of our secondary education would disappear. Each type is of equal importance to the nation at large, and each ought equally to be supported out of the national and local funds."

* * * * * *

Acting on these lines we should get two considerable nucleus schools, organised on separate lines and offering different types of education, and the parents of the neighbourhood would be able to take their choice of type. There should be no overlapping and no competition save in the excellence of the work peculiar to each.

An excellent opportunity of seeing a new school of the scientific type is now presented by the Gresham School, Holt, Norfolk, which might serve as a model for the future Wolverley, or the re-organised Kidderminster.

In any re-organisation of this group it is represented that the valuable services of the head-masters of Bewdley and Hartlebury should be retained. They have both proved their efficiency and have fought a hard battle with most commendable courage. Men so capable could readily be given honourable and remunerative employment in the new group.

THE OTHER SCHOOLS.—It seems natural to consider Halesowen and Bourne College, Quinton, together. In the event of the County Council acquiring the latter school, an amalgamation would probably be best: should amalgamation prove impossible or be considered inadvisable, Halesowen might be reconstituted as a mixed school. There is a population, I understand, of nearly 10,000, which is fairly homogeneous as regards its main social factors, and there does not appear to be any valid reason why such a school should not thrive. But on this point local knowledge is of great importance and suggestions from outside must take second place.

Hanley Castle serves a district of its own; it should be encouraged, and it might be developed into the county school of agriculture.

The two schools at Evesham should be amalgamated and the reconstituted grammar school be made the central secondary school for the southern part of Worcestershire.

Concluding Remarks.

I am strongly convinced as the result of the inspections held that nearly all these schools are suffering from want of funds, and that to this want their shortcomings are mainly due. This it is that causes them to be inadequately staffed, both as regards the quantity and quality of the assistant-masters. Hence, arises the lack of rapid progress and the failure of even the top boys to reach a high standard in the most important subjects. A great deal of time is wasted in copying out work, and in other ways boys who ought to be marching forward are almost necessarily kept marking time.

Amalgamation of funds would in many cases provide a more liberal staff for the surviving fittest; but, even so, it is probable that the County Council must be prepared to make considerably increased grants to approved schools for the service of the salaries of assistant-masters.

The class of assistant-masters should in many cases be raised. It is not educative or elevating to children of any class in life to be taught by masters who ignore the aspirate, and whose manners generally need a good deal of forgiveness. . . . .

But independently of external aid, some of these schools might be made approximately self-supporting by a judicious raising of the tuition fees. In most cases these fees were fixed at a time when the education given was of a much less comprehensive character than that which is now demanded, while modern educational plant and appliances are far more elaborate and costly. *e.g.* It is an anomaly that while the fees in the Boys' Grammar School, Kidderminster, are six guineas per annum, those in the High School for Girls are from twice to thrice this amount. The endowments of the Boys' School do not compensate for this vast difference. A graduated fee of from £8 to £12 per annum would greatly further the efficiency of the staff. Partial remission of fees could be made in the case of deserving and necessitous scholars.

Nothing is more certain than that in education "cheapness" must connote "nastiness." This truth should be brought home to the public consciousness by the lecturers on education whose services I have suggested above should be occasionally secured by the County Council.

IV.—SELECTED SCHEMES OF VARIOUS LOCAL EDUCATION AUTHORITIES.

(1) RELINQUISHMENTS OF POWERS UNDER PARTS II. AND III. OF THE EDUCATION ACT, 1902.

(a) CARNARVONSHIRE AND BANGOR.

Relinquishment by the Town Council of Bangor (hereinafter referred to as the Town Council) to the County Council of Carnarvonshire (hereinafter referred to as the County Council) of the powers and duties of the Town Council under the Education Act, 1902 (hereinafter referred to as the Act).

Whereas the County Council is a Local Education Authority for the purposes of the Act;

And whereas the Town Council is a Local Education Authority for the purposes of Part III. of the Act, and has in pursuance of the Act certain powers with respect to education other than elementary;

And whereas, in pursuance of the powers conferred upon them by Section 27 (2) of the Act, the Board of Education have appointed as the day on which the Act shall come into operation for the Town Council the 5th day of November, 1903, or such later day or days as the Board may for any purpose of the Act for the Town Council thereafter appoint;

And whereas by Section 20 (b) of the Act it is, amongst other things, provided that the Council of a non-county borough may at any time after the passing of the Act, by agreement with the Council of the county and with the approval of the Board of Education, relinquish in favour of the Council of the county any of their powers and duties under the Act, and in that case the powers and duties of the Authority so relinquished shall cease and the area of the Authority, if the powers and duties relinquished include powers as to elementary education, shall, as respects those powers, be part of the area of the County Council;

And whereas the County Council and the Town Council have agreed upon these presents;

It is hereby witnessed as follows:—

(1) The Town Council hereby relinquish in favour of the County Council all their powers and duties as a Local Education Authority under Part III. of the Act, and all their powers and duties under the Act with respect to education other than elementary, to the intent that the powers and duties of the Town

CLEOBURY MORTIMER COLLEGE, SALOP (GENERAL VIEW). (*See page* 61)

Council shall cease, and the area of the Town Council shall, as respects powers as to elementary education, be part of the area of the County Council, and the County Council hereby accept the aforesaid relinquishment;

(2) This relinquishment is subject to the approval of the Board of Education;

(3) The relinquishment shall have effect as from the 5th day of November aforesaid, or such later day as the Board of Education may hereafter appoint as the appointed day for the Town Council under Section 27 (2) of the Act.

In witness whereof the seals of the Town Council and of the County Council were hereto affixed the 3rd day of November, 1903.*

(b) CORNWALL AND TRURO.

I.

Memorandum of Agreement † between the Council of the city of Truro, in the county of Cornwall, of the one part and the Council of the administrative county of Cornwall of the other part.

Whereas the Council of the city of Truro, having a population of over 10,000, are, as respects the said borough, the Local Education Authority for the purposes of Part III. of the Education Act, 1902;

And whereas the Council of the said city have agreed with the Council of the said county, and with the approval of the Board of Education, to relinquish in favour of the Council of the said county their powers and duties under Part II. of the said Act and their powers and duties as Local Education Authority under Part III. of the said Act;

Now it is hereby agreed as follows:—

(1) The Council of the said city, with the approval of the Board of Education, hereby relinquish in favour of the Council of the said county all their powers and duties under Part II. of the said Education Act, 1902, and their powers and duties as a Local Education Authority under Part III. of the said Act, and the Council of the said county hereby agree to accept such relinquishment;

(2) This Agreement is subject to the approval of the said relinquishment by the Board of Education.

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* This Agreement, which has been approved by the Board of Education, is signed, on behalf of Bangor Town Council, by Mr. E. O. Price, Deputy Mayor, and Mr. W. H. Rowland, Town Clerk; and, on behalf of Carnarvonshire County Council, by Messrs. J. I. Davies and J. R. Pritchard, and Mr. A. Bodvel Roberts, Deputy Clerk.

† This Agreement, as well as Agreement marked II., was signed on the 14th August, 1903, on behalf of Truro City Council, by Mr. John James, Mayor, and, on behalf of Cornwall County Council, by Mr. H. D. Foster, Member, and Mr. C. L. Cowland, Clerk.

II.

Memorandum of Agreement between the Council of the borough of Truro, in the county of Cornwall, of the one part and the Council of the administrative county of Cornwall on the other part.

Whereas by an Agreement, dated the 14th day of August instant, under the respective Common Seals of the parties hereto, the Council of the said borough, with the approval of the Board of Education, have relinquished in favour of the Council of the said county their powers and duties under Part II. of the Education Act, 1902, and their powers and duties as Local Education Authority under Part III. of the said Act, and the Council of the said county have agreed to accept such relinquishment;

And whereas such relinquishment was agreed on between the said parties on certain conditions;

Now it is hereby agreed between the said parties as follows:—

(1) Two of the additional members of the Education Committee under an altered scheme, approved by the Board of Education on the day of last shall be elected by the Council of the borough of Truro (not necessarily members of the Council), who shall retire annually on the day before the quarterly meetings of the County Council in May, except in the year in which the triennial retirement of County Councillors takes place, when they shall retire on the 15th day of March in that year;

(2) As regards the management of all schools within the said borough, the County Council agree to waive their power to appoint one of the representative managers in favour of the Council of the said borough, but with a right of veto.

(c) HERTFORDSHIRE AND ST. ALBANS AND WATFORD.*

I.

An Agreement made the 31st day of March, 1903, between the Urban District Council of Watford (hereinafter called "the District Council") of the one part, and the County Council of the

* The Agreements effected between the Herts County Council and these two Authorities are, to all intents and purposes, the same. The Agreement with Watford is printed in full, as I.: the chief differences between it and that with St. Albans are briefly summarised, as II., on p. 80. The Watford Agreement is signed by Mr. F. Fisher, Chairman, and Mr. H. M. Turner, Clerk of the Urban District Council, and was approved by the Board of Education on 18th July, 1903. The St. Albans Agreement is signed by Mr. H. T. Hodding, Mayor, and was approved by the Board of Education on 28th September, 1903. Both Agreements are signed, on behalf of the County Council, by Mr. A. L. Stride, Member, and Mr. C. E. Longmore, Clerk.

administrative county of Hertford (hereinafter called "the County Council") of the other part.

Whereas by virtue of "The Education Act, 1902" (hereinafter referred to as "the Act") the District Council are the Local Education Authority for the purpose of Part III. of the Act as respects the urban district of Watford (hereinafter called "the urban district") in the administrative county of Hertford, and the County Council are the Local Education Authority for the like purpose as respects the remainder of the said county (exclusive of certain boroughs);

And whereas by Section 20 of the Act it is amongst other things provided that an Authority having powers under the Act, if the Authority is the Council of an urban district, may at any time after the passing of the Act, by agreement with the Council of the county and with the approval of the Board of Education, relinquish in favour of the Council of the county any of their powers and duties under the Act, and that in that case the powers and duties of the Authority so relinquished shall cease and the area of the Authority, if the powers and duties relinquished include powers as to elementary education, shall, as respects those powers, be part of the area of the County Council;

And whereas the District Council have agreed with the County Council to relinquish in favour of the County Council, all and singular, the powers and duties of the District Council as Local Education Authority for the purpose of Part III. of the Act (which part relates to elementary education) as respects the urban district upon the conditions hereinafter expressed, and the County Council have assented to the said conditions;

Now therefore, in pursuance of the powers conferred by the Act upon the District Council and the County Council respectively and of all other powers (if any) enabling them in this behalf, the District Council and the County Council do hereby mutually agree as follows (that is to say):—

(1) This Agreement is subject to the approval of the Board of Education, and if that approval shall not be given, or if the said Board shall require (as a condition of their approval) any such alteration to be made in the terms of this Agreement as will in the opinion of either of the parties hereto be prejudicial to the interests of that party, and that party shall by notice in writing to the other party withdraw from this Agreement, then and in either such case this Agreement shall be void and of no effect.

(2) The District Council do hereby relinquish and give up in favour of the County Council, all and singular, the powers and duties of the District Council as Local Education Authority for

the purpose of Part III. of the Act as respects the urban district, to the intent that the urban district shall as respects those powers become and remain part of the area of the County Council.

(3) Three of the persons from time to time appointed by the County Council as members of the Hertfordshire Education Committee shall be County Councillors elected for electoral divisions within the urban district, if willing to serve, and the scheme of the County Council for the constitution of an Education Committee under Section 17 of the Act shall provide for the appointment by the County Council from time to time as members of the said Committee of two persons, who shall be nominated by the District Council from among persons of experience in education and persons acquainted with the needs of various kinds of schools in the said administrative county of Hertford. The first such nomination shall be made at a meeting of the District Council to be held within one month after the date of the approval of this Agreement by the Board of Education.

(4) (*a*) The County Council shall provide for grouping under one body of managers all such public elementary schools provided or deemed to be provided by the County Council (including all existing board schools) as are or shall be situate within the urban district as from time to time constituted.

(*b*) The said body of managers shall consist of 15 members, of whom ten shall be appointed by the County Council, and shall on the occasion of the first appointment include three County Councillors elected for the electoral divisions within the urban district, if willing to serve, and seven persons being members of one or other of the now existing School Boards known as the Watford School Board and the Bushey School Board, and five shall be appointed by the District Council as Minor Local Authority under the Act.

(*c*) The first managers so to be appointed shall hold office until the date of the statutory meeting of the County Council to be held in the month of March, 1907, and shall then retire; a further appointment shall be made in the said year, 1907, and thereafter in every third year.

(5) Subject as hereinafter provided, the said body of managers (hereinafter called "the managers") shall be empowered to deal with all matters relating to the management of the said schools, including the power of appointing and dismissing teachers and of incurring liabilities for the ordinary current expenses of such management, provided as follows:—

(*a*) The managers shall, on such half-yearly days as may from time to time be fixed by the County Council, submit to the County

Council proper estimates of their current expenses for the next ensuing half of a year, and also, on such quarterly days as may from time to time be fixed by the County Council, submit to the County Council proper reports of their proceedings during the preceding quarter of a year;

(*b*) The managers shall not incur any expenses in excess of the estimate approved by the County Council;

(*c*) No liability for any capital expenditure shall be incurred by the managers, but the managers may (and shall if required by the County Council) report to the County Council as to any matter involving capital expenditure, and any such report shall be considered by the County Council;

(*d*) All accounts and claims for payment of expenses properly incurred by the managers shall be remitted for payment to the County Council, or as they may direct;

(*e*) The expenses incurred by the County Council in consequence of this Agreement shall, so far as not otherwise provided for, be paid, dealt with, charged and raised in accordance with the provisions of Section 18 (1) (*a*) (*c*) (*d*) of the Act;

(*f*) The consent of the County Council shall be required to the appointment and dismissal of teachers;

(*g*) The approval of the County Council shall be required to the scale of salaries for the remuneration of teachers, but, so that until a new scale has been approved, the scale in force within the Watford School District on the day upon which the Act shall come into operation within the administrative county of Hertford shall continue, and the said scale shall not be altered in such a way as to injuriously affect any teacher holding office on that day;

(*h*) All questions of principle arising in the management of the said schools shall be submitted to the County Council;

(*i*) When, if and whenever it is proposed to erect new schools or to make additions to existing schools, applications of local architects and builders to carry out the work shall receive due consideration by the County Council.

(6) (*a*) The County Council shall cause to be appointed a Sub-Committee of the Education Committee for the purpose of dealing with school attendance within the urban district, and such Sub-Committee shall include some of the County Councillors elected for the electoral divisions within the urban district (if willing to serve), and some of the Urban District Councillors for that district, and some of the managers of public elementary schools situate within that district.

(*b*) Full powers to deal with all matters relating to school attendance within the urban district shall be delegated to the said

Sub-Committee so far as the County Council and the County Education Committee have power to delegate the same.

(*c*) The said Sub-Committee shall, on such quarterly days as may from time to time be fixed by the County Council, submit to the County Council reports of the proceedings of the said Sub-Committee during the preceding quarter of a year.

(7) The County Council shall make such orders and regulations and do all such things as may seem to them necessary or proper for giving full effect to this Agreement, and may for all or any of the purposes of this Agreement act by the Education Committee.

(8) If any difference shall arise between the District Council and the County Council with respect to the construction, meaning or effect of these presents, or their respective rights or duties hereunder, the same shall be referred to the Board of Education or to an arbitrator to be appointed by that Board, and the decision of the said Board or Arbitrator shall be final.

In witness whereof the District Council and the County Council have respectively caused their Common Seals to be hereunto affixed the day and year first above written.

II.

The Agreement between Hertfordshire County Council and St. Albans Town Council in regard to the relinquishment of the powers and duties of the latter to the former under Part III. of the Education Act, 1902, chiefly differs from the Agreement between the County Council and Watford Urban District Council in the following particulars:—

In Clause (3) the words "at least one" should be substituted for the word "three" (of the persons from time to time appointed by the County Council); in Clause (4) (*b*), the numbers of members, taken consecutively, should read "twelve" instead of "15," "eight" instead of "ten," "three" instead of "seven," and "four" instead of "five"—and after the words "if willing to "serve," the following should be inserted: "and shall on the "occasion of the first appointment include two Town Councillors "of the city"; to Clause (4) should be added the following sub-section:—"The first County Councillors so to be appointed as "managers shall hold office until the first Monday after the "8th day of March, 1904, on which day the County Council shall "fill their places by appointing three persons, being then County "Councillors for the electoral divisions within the city, and the "County Councillors so appointed shall hold office until the date of "the statutory meeting of the County Council to be held in the "month of March, 1907"; Clause 5 (*a*) should be deleted.

(2) THE CONSTITUTION OF THE EDUCATION COMMITTEE FOR LONDON.

REPORT AND PROPOSALS OF THE GENERAL PURPOSES COMMITTEE OF THE COUNTY COUNCIL ON THE EDUCATION (LONDON) ACT, 1903.*

The Council on 10th November, 1903, referred to us the Education (London) Act, 1903, and we have now to advise as to the practical steps to be taken for its administration.

We have had reports on the probable financial effect of the Act upon the ratepayers of London from the Comptroller and the Statistical Officer, from which it appears that, on the basis of the present scale of expenditure on the London Board and voluntary schools, the immediate effect of the provisions of the Act will not be to make any fresh call upon the ratepayers. This arises from the fact that the new grant from taxation will yield a surplus of about £50,000 on the amount of the payments which the Council will have to make upon the present basis of expenditure.

This, however, is only the probable financial result in the first year after transfer. It is necessary to consider what will be the effect of the expenditure which will be required to raise the standard of efficiency of the non-provided schools to that of the provided schools. It is reckoned that this will not only absorb the surplus mentioned above but will involve an extra charge upon the ratepayers of from one penny to twopence in the £. This is after allowing for the new Imperial grant of about £240,000 which is contributed by the taxpayers. The process of levelling up will necessarily be a gradual one, and there will be no extra charge upon the rates at first, though ultimately there will be a substantial charge.

The Comptroller points out that the outstanding debt of the School Board will be transferred to the Council. The sum of £8,614,545, which has hitherto appeared as an asset in the Council's Debt Account, will be removed from that category, and the Council's net debt will be increased by that sum. The gross and net debt of the Council will be further increased by the sums due to the Public Works Loan Commissioners, and by the amount of the other liabilities which had not come into course of payment at 25th March, 1903. These figures will be increased by the operations of the Board between that day and "the appointed day" (1st May, 1904). This addition to the Council's debt will not, of course, involve an additional liability on the part of the ratepayers of London.

* This report is dated 21st January, 1904, and was adopted by the London County Council on 26th January, the amendment referred to in the report bein defeated by 78 votes to 26. (See Editorial Notes, p. 3.)

The first duty, and the chief duty, which falls to the present Council to carry out is the preparation of a scheme for the Education Committee, which scheme has to be submitted to the Board of Education for its approval.

In considering how best to advise the Council upon this point, we have had before us particulars of numerous schemes of very varying form for the constitution of Education Committees in England, which have been approved by the Board of Education, and we have carefully considered the various methods by which attempts have been made to solve the problem in other counties and large towns, and the bearing that they have upon the peculiar circumstances and needs of London.

We have also considered whether it would be desirable to follow the model of the Technical Education Board, the value of whose services we fully recognise, and we have come to the conclusion that there are many reasons why the Council should not do so. It must be remembered that the constitution of that Board was a matter which rested absolutely with the Council from year to year to determine, while no alteration can be made in the constitution of the Education Committee except by the method of applying to the Board of Education to amend the scheme. The position and rights conferred upon the Education Committee by statute and the practical requirements of the case will place that Committee in a very different relation to the Council than that in which the Technical Education Board stands. There is, besides, a vast difference between the scope and nature of the work which the Technical Education Board carried out in one strictly limited sphere of education and the great responsibility which has been placed upon the Council as the Authority for elementary, secondary, technical and higher education.

We may point out to the Council that, if it adopts the model of the Technical Education Board, there will be a very large number of interests which will claim representation. Upon the Technical Education Board are representatives of the City and Guilds of London Institute, the London Trades Council, the National Union of Teachers, the Incorporated Association of Head-masters and the Trustees of the London Parochial Charities. Besides these, each denomination interested in the various descriptions of voluntary schools and various classes of teachers would claim to be represented. The result would be a Committee which would not be homogeneous with the Council, and might very probably fail to work harmoniously with it. We do not doubt that the necessary experience will be found among the members of the Council and the women whom we propose should be added to the Committee.

Another reason why we think the Education Committee should be really a Committee of the Council and not largely made up of nominated or recommended persons is that the Council has only a limited control over the appointment of managers. In the case of the provided schools, two-thirds of the managers will be appointed by the Council of the borough in which the school is situated, and in the case of the non-provided schools, four will be foundation managers, one will be appointed by the Borough Council and only one by the County Council.

We strongly advise the Council to place two objects before it in constituting the Education Committee—(1) that the Committee shall be one which will work harmoniously with the Council in developing a complete and well-co-ordinated system of London education, and (2) that its constitution shall be such as to retain one of the greatest public interests under real public control as far as possible. We do not believe that these objects will be attained by trying to form a Committee largely nominated or recommended by the numerous interests, which, unfortunately at the present time, are far from being harmonious; but that they will be best secured by giving control to representatives who are responsible to the public at large.

We propose that the Committee should consist of 35 members of the Council, with the Chairman, Vice-Chairman and Deputy-Chairman, and that, in accordance with the provision of the Act, five women should be added, to be chosen for their experience in education. We think that the Committee would be strengthened by the appointment, during the term of the first Committee, of members of the present London School Board, and we recommend that power should be taken to add five such members. The first Committee would, therefore, consist of 48 members, and we think it should be appointed for a period ending in March, 1906, as there would not be a complete year between the time when the Act comes into operation and March, 1905.

The Draft Scheme.

The following is the draft scheme which we think should be adopted :—

EDUCATION (LONDON) ACT, 1903.

Scheme for the establishment of an Education Committee pursuant to Section 17 of the Education Act, 1902.

(1) The London County Council (hereinafter called "the Council") shall establish for the purposes of the Education (London) Act, 1903, an Education Committee (hereinafter called

"the Committee"), which Committee shall consist of 43 members, and shall include (*a*) the Chairman, Vice-Chairman and Deputy-Chairman for the time being of the Council; (*b*) 35 persons, who shall be members for the time being of the Council; and (*c*) five women selected by the Council. Persons of experience in education and persons acquainted with the needs of the various kinds of schools in the administrative county of London shall always be included in the Committee.

(2) In addition to the said 43 members, the Council may appoint, as members of the first Committee, members of the London School Board not exceeding five in number.

(3) The first members of the Committee, other than the Chairman, Vice-Chairman and Deputy-Chairman of the Council, shall be appointed by the Council at a meeting of the Council to be held on the 22nd March, 1904, and shall hold office until the ordinary day of election of Committees of the Council in the month of March in the year 1906.

(4) Except as provided by Clause (3), the members of the Committee shall retire annually, and shall hold office until the first meeting of their successors; but in the year in which the triennial retirement of County Councillors takes place they shall retire on the 7th of March.

(5) Every member of the Committee, not being a member of the Council, shall, after appointment or reappointment, and before being entitled to act as a member of the Committee, sign a declaration of acceptance of office on a form to be prescribed by the Council.

(6) Any member of the Committee who shall notify in writing to the Clerk of the Council his intention to resign, or who shall (except in case of illness, or for a reason approved by the Committee) be for six successive months absent from all meetings of the Committee, or who being, when appointed, a member of the Council, shall cease to be a member thereof, or who, not being a member of the Council, shall fail for the period of three calender months to sign the declaration of acceptance of office, or shal become bankrupt, or shall file in any Court having jurisdiction in bankruptcy a declaration of inability to pay debts, shall thereupon cease to be a member of the Committee.

(7) Any casual vacancy in the Committee shall be filled up by the Council as soon as conveniently may be, the appointment being made only for the remainder of the term for which the vacating member was appointed.

Recommendation.—We recommend that the Draft Scheme for the establishment of an Education Committee be approved, and that the same be forwarded to the Board of Education for its approval.

An Amendment.*

Notice has been given by Mr. P. H. Harris of the following amendment to the recommendation of the Committee (to be seconded by the Deputy-Chairman of the Council):—

"That Clause (1) of the Draft Scheme be amended so that it shall provide that the Education Committee shall consist of 58 members, and shall include (*a*) the Chairman, Vice-Chairman and Deputy-Chairman for the time being of the Council; (*b*) 35 persons who shall be members for the time being of the Council; (*c*) twelve persons appointed by the Council on the recommendation of the following bodies:—University of London, one; Church of England schools, two; Roman Catholic schools, one; Wesleyan and other schools, one; head-masters of secondary schools, one; assistant-masters of secondary schools, one; elementary teachers, one; Corporation of the City of London, one; City and Guilds Institute, one; City Parochial Charities, one; London Trades Council, one; and (*d*) eight persons, of whom five shall be women, to be selected by the Council; and that the scheme so amended be approved and forwarded to the Board of Education for its approval."

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* See footnote on p. 81.

V.—DIRECTORS AND SECRETARIES FOR EDUCATION IN ADMINISTRATIVE COUNTIES AND COUNTY BOROUGHS IN ENGLAND AND WALES.

LIST OF APPOINTMENTS UNDER THE EDUCATION ACT, 1902.*

I.—ADMINISTRATIVE COUNTIES.

BEDFORDSHIRE .....*Director*: Mr. Frank Spooner, Shire Hall, Bedford.

BERKSHIRE .....*Secretary*: Mr. W. C. F. Anderson, 30, The Forbury, Reading.
Assistant Secretary: Mr. A. J. Shirley, 30, The Forbury, Reading.
Clerk and Legal Adviser: Mr. J. T. Morland, M.A., Clerk to County Council.

BRECONSHIRE.....*Clerk to Committee*: Mr. H. F. W. Harries, Education Offices, Brecon.

BUCKINGHAMSHIRE..*Secretary*: Mr. C. G. Watkins, Education Office, Aylesbury.
Assistant Secretary: Mr. W. A. Hutchins, Education Office, Aylesbury.

CAMBRIDGESHIRE ...*Secretary*: Mr. Austin Keen, Cambridge and County Education Offices, Sidney Street, Cambridge.
Assistant Secretary: Mr. Frank Birkenshaw, Cambridge and County Education Offices, Sidney Street, Cambridge.

CARDIGANSHIRE .....*Clerk to Committee*: Mr. D. Jenkins, County Offices, Aberystwyth.

CARMARTHENSHIRE..*Clerk to Committee*: Mr. J. W. Nicholas, County Offices, Carmarthen.

CARNARVONSHIRE ...*Secretary*: Mr. Evan R. Davies, County Education Offices, Carnarvon.

* See remarks in the Editorial Notes.

BROCKHURST PREPARATORY SCHOOL, SALOP (SOUTH FRONT OF HOUSE).

(*See page* 53.)

CHESHIRE .....*Director*: Mr. R. P. Ward, County Offices, Chester.
Assistant Director: Mr. J. H. Howitt, M.A., County Offices, Chester.

CORNWALL .....*Secretary for Higher Education*: Mr. John Gill, Gwealhellis, Helston.
Secretary for Elementary Education: Mr. Frederick R. Pascoe, Education Offices, Truro.

CUMBERLAND .....*Director*: Mr. C. Courtenay Hodgson, M.A., The Courts, Carlisle.
Assistant Secretary and Inspector for Higher Education: Mr. J. W. Slater.
Assistant Secretary and Inspector for Elementary Education: Mr. Wm. Elliot, M.A.

DENBIGHSHIRE .....*Director*: Mr. J. C. Davies, M.A., County Offices, Ruthin.

DERBYSHIRE .....*Director*: Mr. Evan W. Small, M.A., B.Sc., County Offices, Derby.
Assistant Secretary for Elementary Education: Mr. A. L. Jenkyn Brown, B.A., County Offices, Derby.

DEVON .....*Secretary*: Mr. J. F. Young, M.A., County Education Offices, 50, Queen Street, Exeter.
Inspector for Secondary Education: Mr. R. E. Moyle, M.A., County Education Offices, 50, Queen Street, Exeter.
Inspector for Elementary Education: Mr. H. Beardsley, County Education Offices, 50, Queen Street, Exeter.

DORSET .....*Secretary*: Mr. B. R. Swift, County Education Office, Dorchester.
Assistant Secretary: Mr. W. J. Donald, County Education Office, Dorchester.

ESSEX .....*Secretary*: Mr. J. H. Nicholas, M.A., County Offices, Chelmsford.
Assistant for Higher Education: Mr. E. H. Finch.
Assistant for Elementary Education: Mr. A. S. Elford, B.A., F.C.S.

FLINT .....*Director*: Mr. J. Bevan Evans, M.A., County Offices, Mold.

GLAMORGANSHIRE ...*Director*: Dr. John James, B.A., B.Sc., Education Department, Westgate Street, Cardiff.

GLAMORGANSHIRE (*con.*) ...*Organising Agent*: Mr. Walter Hogg, Education Department, Westgate Street, Cardiff.

GLOUCESTERSHIRE. .*Director*: Mr. H. W. Household, M.A., County Education Office, College Court, Gloucester.

HAMPSHIRE .....*Director*: Mr. D. T. Cowan, Education Office, The Castle, Winchester.

Assistant for Higher Education: Mr. R. E. Christie, M.A.. Education Office, The Castle, Winchester.

Assistant for Elementary Education: Mr. A. C. Boyde, B.A., F.C.S., Education Office, The Castle, Winchester.

HEREFORDSHIRE ...*Secretary*: Mr. John Wiltshire, Shire Hall, Hereford.

Clerk to Committee: Mr. Edmund Goldsack, Shire Hall, Hereford.

HERTFORDSHIRE.....*Education Officer*: Mr. A. R. S. Hallidie, Clerk's of the Peace Office, Hertford.

Clerk to Committee: Mr. C. E. Longmore, Clerk to County Council.

Secretary for West Herts., for Agriculture and for Higher Education: Mr. Albert Dean, Eastfield, St. Albans.

HUNTINGDONSHIRE .*Secretary*: Mr. S. G. Cook, M.A., B.Sc., County Offices, Huntingdon.

ISLE OF ELY.....*Organising Secretary*: Mr. J. W. Jones, Education Office, 18, Lower Hill Street, Wisbech.

ISLES OF SCILLY ...*Secretary*: Mr. E. N. V. Moyle, Education Offices, St. Mary's.

ISLE OF WIGHT ...*Clerk to Committee*: Mr. F. G. Flux, County Education Offices, Technical Institute, Newport (I. of W.).

Organising Secretary for Higher Education: Mr. John D. Custance, 20, Holyrood Street, Newport (I. of W.).

KENT .....*Secretary*: Mr. Francis W. Crook, B.A., 44, Bedford Row, London, W.C.

Principal Assistant Secretary: Mr. Cholmondeley Harrison, M.A., 44, Bedford Row, W.C.

Second Assistant Secretary: Mr. W. T. H. Walsh, B.A., 44, Bedford Row, W.C.

KENT (*con.*).....*Inspector of Higher Education*: Mr. E. G. Davies, M.A., 44, Bedford Row, W.C.

LANCASHIRE .....*Director*: Dr. H. Lloyd Snape, County Offices, Preston.
Secretary for Higher Education: Mr. Wm. Wilson, M.A., County Offices, Preston.
Assistant Secretary for Higher Education: Mr. E. Smith, County Offices, Preston.
Secretary for Elementary Education: Mr. A. H. Bott, M.A., County Offices, Preston.
Director of Agricultural Education: Mr. John Bayne, County Offices, Preston.

LEICESTERSHIRE ...*Director*: Mr. W. A. Brockington, M.A., 33, Bowling Green Street, Leicester.
Secretary: Mr. A. J. Baker, 33, Bowling Green Street, Leicester.

LINCOLNSHIRE (HOLLAND) .....*Secretary*: Mr. A. A. Crabtree, Sessions House, Spalding.

LINCOLNSHIRE (KESTEVEN) .....*Secretary*: Mr. Hudson Donaldson, St. Catherine's Road, Grantham.

LINCOLNSHIRE (LINDSEY) .....*Secretary*: Mr. S. Maudson Grant, 17, Mint Street, Lincoln.

MERIONETHSHIRE ...*Secretary*: Mr. H. Haydn Jones, Education Offices, Towyn, R.S.O.

MIDDLESEX.....*Secretary*: Mr. B. S. Gott, Guildhall, Westminster, S.W.
Assistant for Higher Education: Mr. A. I. Bird, Guildhall, Westminster, S.W.
Assistant for Elementary Education: Mr. F. Roberts, Guildhall, Westminster, S.W.

MONMOUTHSHIRE ...*Director of Elementary Education*: Mr. J. W. Hall, B.A., County Offices, Newport (Mon.).

NORFOLK.....*Secretary*: Mr. W. V. Bushell, 57, London Street, Norwich.
Secretary for Higher Education: Mr. E. Pillow, 57, London Street, Norwich.

NORTHAMPTONSHIRE *Secretary*: Mr. Byron R. Simpson, County Hall, Northampton.
Assistant Secretary: Mr. W. Dawson Sadler, M.A., County Hall, Northampton.
Assistant Secretary for Elementary Education: Mr. Edwin Jenkins, County Hall, Northampton.

NORTHUMBERLAND. ..*Secretary*: Mr. Charles Williams, County Education Offices, New Bridge Street, Newcastle-on-Tyne.
Assistant Secretary: Mr. J. Treble, County Education Offices, New Bridge Street, Newcastle-on-Tyne.
Clerk to Committee: Mr. H. D. Irwin, County Education Offices, New Bridge Street, Newcastle-on-Tyne.

NOTTINGHAMSHIRE..*Director*: Mr. C. J. Bristowe, Shire Hall, Nottingham.
Secretary to Director: Mr. C. J. Bramley, Shire Hall, Nottingham.

OXFORDSHIRE .....*Secretary*: Mr. P. Elford, M.A., 8, New Road, Oxford.
Assistant Secretary: Mr. F. C. Weedon, 8, New Road, Oxford.

RUTLAND .....*Secretary*: Mr. C. G. Bone, B.A., County Council Offices, Oakham.

SHROPSHIRE .....*Clerk to Education Authority*: Mr. E. Cresswell Peele, Shire Hall, Shrewsbury.
Secretary for Higher Education: Mr. W. H. Pendlebury, M.A., Shire Hall, Shrewsbury.
Secretary for Elementary Education: Mr. H. E. Wale, Shire Hall, Shrewsbury.
Clerk to Committee: Mr. F. Crowte, Shire Hall, Shrewsbury.

SOKE OF PETERBOROUGH .....*Clerk to Committee*: Mr. Walter J. Deacon, Education Department, County Council Offices, Peterborough.

SOMERSET .....*Secretary*: Mr. C. H. Bothamley, County Education Offices, Weston-super-Mare.
Assistant Secretary: Mr. W. A. Lethbridge, B.A., County Education Offices, Weston-super-Mare.

STAFFORDSHIRE .....*Director*: Mr. Graham Balfour, M.A., County Education Offices, Stafford.
Assistant Secretary for Higher Education: Mr. W. J. Elliott, M.A., County Education Offices, Stafford.
Assistant Secretary for Elementary Education: Mr. H. M. Spencer, County Education Offices, Stafford.

SUFFOLK (EAST) ...*Chief Secretary*: Mr. W. E. Watkins, White House, Tower Churchyard, Ipswich.

SUFFOLK (WEST) ...*Secretary*: Mr. F. R. Hughes, County Education Offices, 5, Crown Street, Bury St. Edmunds.

SURREY .....*Secretary*: Mr. H. Macan, M.A., St. Ives, Penrhyn Road, Kingston-on-Thames.

Assistants for Higher Education: Messrs. J. J. Shakespeare (Evening Classes) and J. Younghusband (Day Classes), St. Ives, Penrhyn Road, Kingston-on-Thames.

Assistant for Elementary Education: Mr. Ramsey Nares, St Ives, Penrhyn Road, Kingston-on-Thames.

SUSSEX (EAST) .....*Secretary:* Mr. Edwin Young, County Hall, Lewes.

SUSSEX (WEST).....*Secretary*: Mr. Lionel Thompson, Education Offices, Horsham.

Assistant Secretary and Inspector of Schools: Mr. F. Witcomb, Education Offices, Horsham.

WARWICKSHIRE .....*Director*: Mr. Gerald Fitzmaurice, Education Office, High Street, Warwick.

Assistant Director: Mr. A. H. Whipple, M.A., Education Office, High Street, Warwick.

WESTMORLAND .....*Secretary*: Mr. C. J. R. Tipper, B.Sc., County Education Offices, Lowther Street, Kendal.

Legal Adviser: Mr. John Bolton, Clerk to County Council.

WILTSHIRE .....*Director*: Mr. W. Pullinger, M.A., County Offices, Trowbridge.

Assistant Director and Secretary to Agricultural Education Committee: Mr. C. H. Corbett, County Offices, Trowbridge.

WORCESTERSHIRE ...*Director:* Dr. S. G. Rawson, County Education Offices, 37, Foregate Street, Worcester.

Secretary: Mr. James Mason, County Education Offices, 37, Foregate Street, Worcester.

YORKSHIRE.....*Clerk to Committee*: Mr. J. J. Bickersteth, (EAST RIDING) County Hall, Beverley.

Deputy Clerk to Committee: Mr. J. R. Proctor, County Hall, Beverley.

YORKSHIRE.....*Secretary*: Mr. Douglas Smith, County (NORTH RIDING) Education Offices, Northallerton.

YORKSHIRE (*con.*) (NORTH RIDING) ...*Assistant Secretary*: Mr. William Mennell, County Education Offices, Northallerton.
Legal Adviser: Mr. W. C. Trevor (Clerk to County Council), Northallerton.

YORKSHIRE (WEST RIDING) .....*Director*: Mr. W. Loring, County Hall, Wakefield.
Chief Organising Inspector for Higher Education: Mr. F. N. Cook, County Hall, Wakefield.
Inspector for Secondary Education: Mr. A. V. Houghton, County Hall, Wakefield.
Inspector for Elementary Education: Mr. W. H. Brown, County Hall, Wakefield.
Inspector of Commercial Classes: Mr. J. Graham, County Hall, Wakefield.
Inspectress of Domestic Classes: Mrs. Blackburn, County Hall, Wakefield.
Lecturer on Hygiene: Miss Morris, County Hall, Wakefield.
Clerk to Committee: Mr. W. Vibart Dixon, County Hall, Wakefield.

II.—COUNTY BOROUGHS.

BARROW .....*Clerk to Education Authority*: Mr. C. F. Preston (Town Clerk), Town Hall.
Director: Mr. Arthur Hawkridge, Town Hall.
Secretary: Mr. Wyvil Hutchinson, Town Hall.

BATH ....*Director*: Mr. Frank Roscoe, Guildhall, High Street.
Clerk to Committee: Mr. B. H. Watts, Guildhall, High Street.

BIRKENHEAD .....*Secretary*: Mr. R. T. Jones, Borough Education Department, Town Hall.
Assistant Secretary for Higher Education: Mr. A. H. Crosby, Municipal Schools of Science and Art.

BIRMINGHAM .....*Secretary*: Mr. J. A. Palmer, Education Department, Edmund Street.
Assistant Secretary: Mr. E. Wilson, Education Department, Edmund Street.
Clerk for Technical Education and Evening Schools and Secretary of Technical School: Mr. George Mellor, Municipal Technical School, Suffolk Street.

BLACKBURN .....*Secretary for Secondary Education*: Mr. A. W. King, Municipal Technical School.
Secretary for Elementary Education: Mr. Nicholas Taylor, Elementary Education Office.

BOLTON .....*Secretary*: Mr. Frederic Wilkinson, Education Offices, Nelson Square.

BOOTLE .....*Secretary for Higher Education*: Mr. J. J. Ogle, Municipal Technical School.
Secretary for Elementary Education: Mr. F. K. Wilson, Elementary Education Offices, Balliol Road.

BOURNEMOUTH .....*Organising Secretary*: Mr. F. W. Ibbett, Municipal Buildings.

BRADFORD .....*Secretary*: Mr. Thos. Garbutt, Education Offices, Manor Row.

BRIGHTON .....*Clerk to Committee*: Mr. John Carden, Education Offices, 54, Old Steine.

BRISTOL .....*Secretary*: Mr. Wm. Avery Adams, Guildhall, Broad Street.
Assistant Secretary for Higher Education: Mr. W. H. Doyle, Higher Education Department, Council House.

BURNLEY .....*Clerk to Committee*: Mr. E. Jones, Town Hall.

BURTON-ON-TRENT..*Secretary:* Mr. W. N. Graham, Education Offices, Guild Street.

CANTERBURY .....*Clerk to Committee*: Mr. Henry Fielding (Town Clerk).

CHESTER .....*Director*: Mr. A. E. Lovell, M.A., Town Hall.

COVENTRY .....*Secretary for Elementary Education*: Mr. Charles J. Band, 8, High Street.
Secretary for Technical Instruction: Mr. Edwin Rainbow, Municipal Technical Institute.

CROYDON .....*Clerk to Committee*: Mr. James Smyth, Education Office, Katherine Street.

DERBY .....*Secretary*: Mr. Wm. Cooper, Education Offices, Becket Street.

DEVONPORT .....*Secretary*: Mr. W. H. Crang, Education Offices.
Assistant Secretary: Mr. J. Neal, Education Offices.

DUDLEY .....*Secretary*: Mr. J. Napier, Town Hall.

EXETER .....*Clerk to Committee and Correspondent for Elementary Education*: Mr. H. J. Morgan, Education Offices.

EXETER (*con.*).....*Correspondent for Higher Education*: Mr. G. R. Shorto, Education Offices.

GATESHEAD .....*Secretary*: Mr. E. J. Harding, Education Offices, Prince Consort Road South.

GLOUCESTER .....*Secretary*: Mr. P. Barrett Cooke, Education Offices, 9, Berkeley Street.

GREAT GRIMSBY ...*Clerk to Committee*: Douglas Chandler, Eleanor Street.

GREAT YARMOUTH ..*Clerk to Committee*: Mr. F. W. Wroughton, 28, South Quay.

HALIFAX.....*Secretary*: Mr. W. H. Ostler, Education Offices, 22, Union Street.

HANLEY .....*Secretary*: Mr. John Hodder, Education Offices, Town Hall.

Assistant Secretary: Mr. F. H. Hand, Education Offices, Town Hall.

HASTINGS .....*Clerk to Committee*: Mr. Philip O. Buswell, 18, Wellington Square.

Assistant Clerk: Mr. Wm. G. Tyrrell, 18, Wellington Square.

HUDDERSFIELD .....*Secretary*: Mr. George Gaunt, Education Offices, Peele Street.

HULL .....*Secretary*: Dr. J. T. Riley, Education Offices, Albion Street.

Assistant Secretary for Elementary Education: Mr. T. J. Hards, Education Offices, Albion Street.

IPSWICH .....*Secretary*: Mr. J. H. Hume, Education Offices, Tower House, Tower Street.

LEEDS.....*Secretary*: Mr. Wm. Packer, Education Offices, Calverley Street.

LEICESTER .....*Secretary*: Mr. T. Groves, Education Department, Town Hall.

Assistant Secretary: Mr. R. T. B. Edge, Education Department, Town Hall.

LINCOLN.....*Secretary*: Mr. R. C. Minton, Bank Chambers, St. Benedict Square.

Organising Secretary of Municipal Technical School: Mr. A. E. Collis.

LIVERPOOL .....*Consultative Clerk and Director of Elementary Education*: Mr. Edward M. Hance, Education Office, Sir Thomas Street.

Director of Technical Instruction: Mr. Wm. Hewitt, B.Sc., Central Municipal Technical School, Byrom Street.

LIVERPOOL (*con.*) ...*General Superintendent of Evening Schools and Classes*: (To be appointed).

MANCHESTER .....*Joint Secretaries*: Mr. J. H. Reynolds, Municipal School of Technology, Sackville Street; Mr. C. H. Wyatt, Education Offices, Deansgate.

MIDDLESBROUGH ...*Clerk*: Mr. Alfred Sockett (Town Clerk), Municipal Buildings.

Secretary: Mr. J. S. Calvert, Municipal Buildings.

Assistant Secretary: Mr. A. E. Danby, Municipal Buildings.

NEWCASTLE-ON-TYNE .....*Secretary*: Mr. W. P. Bentley, Education Offices, Northumberland Road.

NORTHAMPTON .....*Clerk to Committee*: Mr. Stuart Beattie, Education Offices, St. Giles' Street.

NORWICH .....*Principal of Technical Institute and Organiser of Higher Education*: Mr. Frank H. Newman, B.Sc.

Organiser of Elementary Education and Inspector of Schools: Mr. D. O. Holme.

NOTTINGHAM .....*Clerk*: Mr. W. J. Abel, Education Offices, Victoria Street.

OLDHAM .....*Secretary*: Mr. James Rennie, Education Offices, Union Street West.

OXFORD .....*Secretary*: Mr. R. Bacon (Town Clerk), Town Hall.

Secretary to City Technical School: Mr. A. F. Kerry, M.A., Church Street.

PLYMOUTH .....*Secretary*: Mr. E. Chandler Cook, Education Offices, 18, Princess Square.

Assistant Secretary for Secondary Education: Mr. T. W. Byfield, Education Offices, 18, Princess Square.

Assistant Secretary for Elementary Education: Mr. G. W. Wherry, 18, Princess Square.

PORTSMOUTH .....*Principal of Technical Institute*: Mr. Oliver Freeman, Municipal Technical Institute.

Secretary and Correspondent for Higher Education: Mr. H. E. Curtis, Municipal Technical Institute.

Secretary for Primary Education: Mr. J. J. Bascombe, Education Offices, Town Hall.

PRESTON.....*Director of Education*: Mr. A. J. Berry, M.A., B.Sc.

READING.....*Secretary*: Mr. H. T. Pugh, Education Offices.

ROCHDALE .....*Secretary*: Mr. E. J. Holden, Education Offices, Baillie Street.

Clerk for Technical Instruction: Mr. A. Barnish, Municipal Technical School, Nelson Street.

ROTHERHAM .....*Secretary*: Mr. W. H. Corbridge, Education Offices, Municipal Buildings.

Director of Higher Education: Mr. G. H. Burkhardt, M.Sc., Education Offices, Municipal Buildings.

ST. HELENS .....*Director*: Mr. J. J. Broomhead, 2, Victoria Square.

SALFORD .....*Director of Education*: Mr. O. Duthie, B.A., Education Offices, Chapel Street.

SHEFFIELD .....*Secretary*: Mr. John F. Moss, Education Offices, Leopold Street.

Assistant Secretary: Mr. G. S. Baxter, Education Offices.

SOUTHAMPTON .....*Secretary*: Mr. John Cruickshank, Education Offices.

SOUTH SHIELDS ...*Secretary*: Mr. A. E. Leete, Education Offices, Ocean Road.

STOCKPORT.....*Secretary for Education*: Mr. Arthur Lawton, B.A., Education Offices, St. Peter's Gate.

Principal of Municipal Technical School and Clerk to Technical Instruction Committee: Mr. R. J. Brown, M.Sc.

SUNDERLAND .....*Secretary*: Mr. T. W. Bryers, 15, John Street.

Clerk to Committee: Mr. F. W. Bowey (Town Clerk).

Director of Higher Education: Principal B. Branford, Municipal Technical College.

SWANSEA.....*Secretary*: Mr. A. W. Halden, Education Offices.

WALSALL .....*Secretary*: Mr. Edward Evans, Education Offices, Bradford Street.

WARRINGTON.....*Secretary and Director*: Mr. J. Moore Murray, Education Offices, Palmira Square.

WEST BROMWICH...*Secretary to Committee and for Higher Education*: Mr. J. E. Pickles, M.A., B.Sc., Education Offices, High Street.

WEST BROMWICH...*Secretary for Elementary Education*: Mr. R. W, (*con.*) Lowe, Education Offices, 312, High Street.

WEST HARTLEPOOL *Secretary for Secondary Education*: Mr. J. G. Taylor, Education Offices, Park Road.

Secretary for Elementary Education: Mr. J. Robson Smith, Education Offices, Park Road.

WIGAN .....*Secretary*: Mr. J. W. Horne, Education Offices, Victoria Buildings, King Street.

WOLVERHAMPTON ...*Secretary*: Mr. J. F. Robinson, Education Offices.

WORCESTER .....*Clerk to Committee*: Mr. Samuel Southall (Town Clerk).

Secretary for Secondary Education: Mr. Thomas Duckworth, Victoria Institute.

Secretary for Elementary Education: Mr. F. T. Spackman, Elementary Education Offices, Hound's Lane.

YORK .....*Secretary*: Mr. C. G. Rushworth, Education Offices, Clifford Street.

VI.—MISCELLANEA.

THE ASSOCIATION OF DIRECTORS AND SECRETARIES FOR EDUCATION.

THIRTEENTH ANNUAL MEETING.

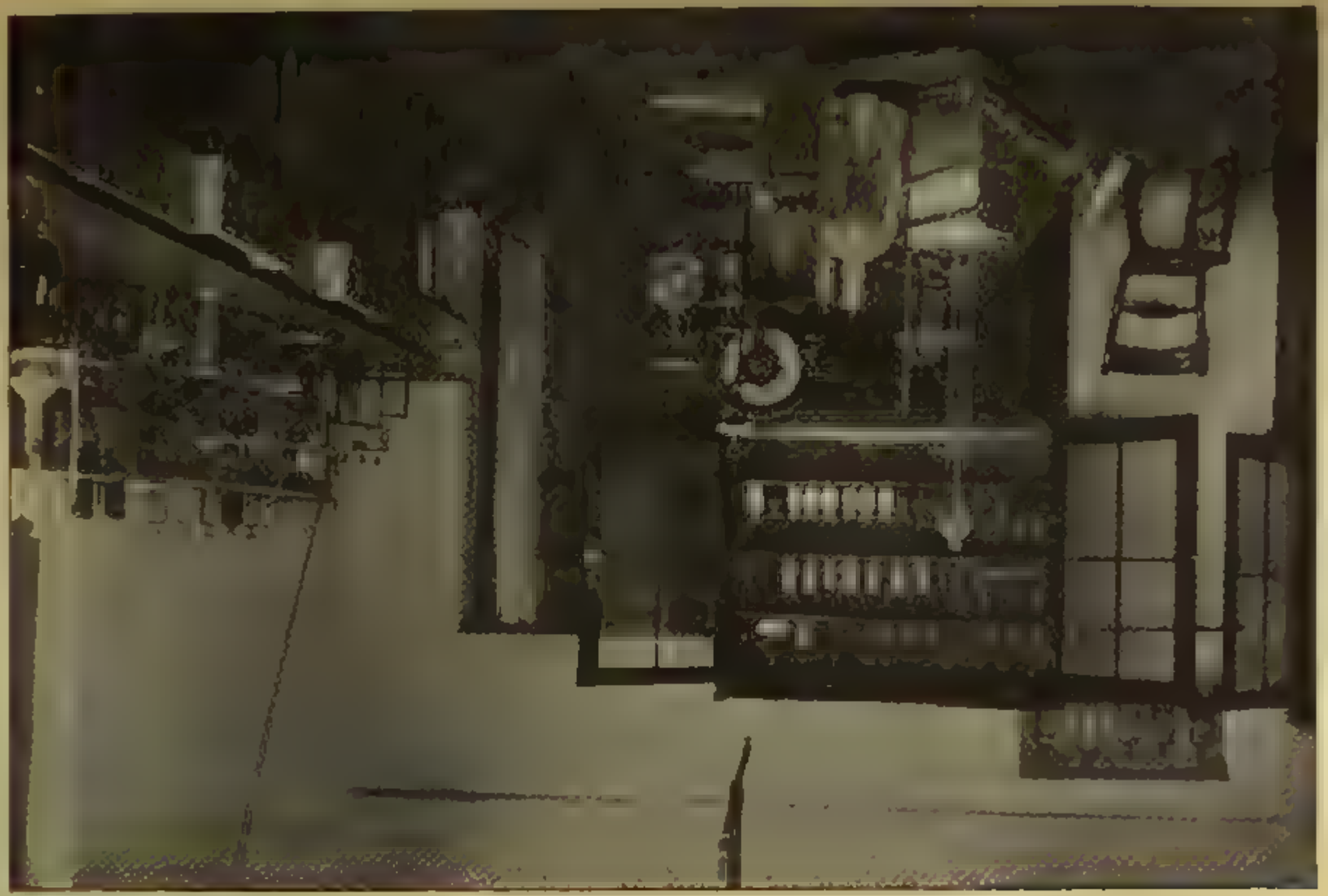
The 13th annual meeting of the above Association was held on Wednesday and Thursday, the 6th and 7th January, 1904, in the Council Chamber of the London County Council, Spring Gardens, S.W., when 41 members were present.

The whole of the first and the morning of the second day were devoted to private or Association business.

The minutes of the ordinary meeting, held on the 6th November, 1903, in the same place, were adopted. Among the matters of importance dealt with on that occasion should be mentioned the changes made by the Board of Education in respect of the recognised procedure under the late Clause VII. arrangements in connection with secondary schools: a special Section is given to the consideration of this question on pp. 115-19. The opinion was expressed that the grants proposed under the new Regulations of the Board of Education concerning pupil-teachers are quite inadequate, and a committee was appointed to report generally upon the Regulations: at the subsequent annual meeting the report of the committee was referred back for further consideration. A Return of the nature and salaries of the staffs appointed under the new Education Act in the various counties and county boroughs was circulated for the use of the members.

The annual report of the Executive Committee stated that the Association numbers 71 members (two honorary), representing 46 counties and 23 county boroughs; but, with subsequent elections, the total membership now reaches 86, an increase of 21 over that of last year. The new members elected include Messrs. C. G. Bone (Rutland), C. J. Bristowe (Nottinghamshire), W. A. Brockington (Leicestershire), W. D. Bushell (Norfolk), J. Carden (Brighton), D. Chandler (Grimsby), S. G. Cook (Huntingdonshire), W. H. Crang (Devonport), O. Duthie (Salford), A. Hawridge (Barrow), J. E Holden (Rochdale), H. W. Household (Gloucestershire), F. R. Hughes (West Suffolk), J. W.

LUDLOW GRAMMAR SCHOOL (SCHOOL-ROOM). (*See page* 61.)



Jones (Isle of Ely), A. E. Lovell (Chester), R. E. Minton (Lincoln), J. Moore Murray (Warrington), J. E. Pickles (West Bromwich), H. T. Pugh (Reading), W. Pullinger (Wiltshire), S. G. Rawson (Worcestershire), G. H. Smith (King's County, Ireland and C. H.) Wyatt (Manchester). During the year much time was necessarily was taken up with discussions on the working of the Education Act, 1902, and in this connection the following subjects, *inter alia*, have been fully discussed :—co-ordination of education; training of teachers; agreements under Section 20 (a) of the Act—(1) with Part III. boroughs for Part II. only, (2) with urban districts (not Part III. Authorities) with regard to (a) Part II. only, and (b) Part II. and Part III.; payment of maintenance expenses of elementary schools: the interpretation of Section 17 (5), especially with regard to any bearing it may have on financial questions under a joint arrangement; endowments, Circular, E.A., 7; appointment of managers; position of non-county boroughs and urban districts under Part II.; as to obtaining early copies of reports of inspectors of the Board of Education for the guidance of Committees; grouping of schools; finance of first year; school attendance work; school requisites, stores and requisitions department; the financing of elementary schools; scale of salaries of teachers; local inspection. In the discussions much valuable information was elicited, which it is hoped has been of material advantage to members in the working of the Act. The question of the procedure in paying grants to Authorities was specially considered, and resolutions were passed representing to the Board of Education—(a) that in the various counties, in view of the desirability of co-ordinating education as required by the Education Act, 1902, all grants should be paid to the Minor Local Authorities for Higher Education through the County Education Authority, and all correspondence between the Board and such Minor Local Authorities should pass through the same channel; and (b) that the Small Population Grants be paid in a lump sum once a year. The representatives of the Association upon other educational bodies reported that the seventh series of modern language holiday courses conducted under the Committee of the Teachers' Guild had proved thoroughly successful; the courses, in general, had been widely copied by other agencies. The only matters of importance reported in connection with the Commercial Education Committee of the London Chamber of Commerce were that negotiations are in progress for transferring the teaching work undertaken by the Chamber in the City of London to the City of London College and that arrangements are being made by several secondary schools in the county of Surrey to adopt the Chamber's

Junior Scheme.* The Treasurer's statement showed a balance of £106 9s. 7d. in favour of the Association.

The following elections or re-elections to office for the current year took place:—Mr. F. Wilkinson (Bolton), Vice-Chairman; Mr. J. H. Nicholas (Essex), Hon. Secretary; Mr. H. Macan (Surrey), Treasurer; and Messrs. Graham Balfour (Staffordshire), A. E. Briscoe (West Ham), F. W. Crook (Kent), C. Courtenay Hodgson (Cumberland) and C. H. Wyatt (Manchester) to fill vacancies on the Executive Committee. It was agreed that the provincial meetings of the Association should be held for the current year at Birmingham (in April) and at Oxford (in July).

The question of the value of inspections by the Board of Education for the purposes of Sections 3 (3) and 4 of the Teachers' Registration Regulations was introduced by Mr. D. T. Cowan (Hampshire), who had elicited the important opinion from the Board of Education that "the recognition accorded by the Board "to the ——— school is solely for the purposes of Sections 3 (3) "and 4 of the Teachers' Registration Regulations. Recognition of "this nature merely implies that service at the school can be "counted as a qualification towards registration in the Teachers' "Register, and does not in any way guarantee the efficiency of the "school for any other purposes."

At the public meeting on the afternoon of the second day the new Chairman, Mr. Percy Elford (Oxfordshire) delivered a valuable address upon the administration of the Education Act, 1902. He considered that the Act was introduced in the first place to improve education other than elementary. The mass of work connected with elementary education thrown on the Local Education Authorities had been so enormous that it was only now that the claims of higher education were beginning to be heard. Many boroughs and counties were finding that all their energies were being devoted to elementary education; and when they had got the elementary schools in good working order and had arranged for the supply of teachers for these schools they would find practically the whole of the money available for higher education would be absorbed, and there would not be enough for the maintenance in a state of high efficiency of the secondary schools, technical institutes and the like. Under such conditions, it behoved them, as the educational experts that the Local Education Authorities would consult, to consider the matter very carefully. The maintenance of public elementary schools and the supply of teachers for these schools must form a very large

* See report on Commercial Education adopted by the Essex Education Committee and printed on pp. 119-22.

portion of the work of Local Authorities, but it was not by any means the only or the most important section of the work of these Authorities. Up to the present, teachers in public elementary schools were, as a rule, those who had passed through the different stages in an elementary school and the savour of the school was continuously before them. No broadening influence had been exerted on their views. Even if clever, as most of them undoubtedly were, the King's Scholarship and training at a training college did not appreciably widen their outlook. They were continually in the atmosphere of an elementary school, and it was only very exceptionally that one rose out of this narrow groove. There was, therefore, a very great need of an introduction into the teaching staff of the schools of a number of teachers, both male and female, who had gone through a wider course of education. There was only one source from which this class of teacher could be drawn—namely, the secondary schools and institutions. But only a few such were now in a position to supply these teachers; so that to produce the number of teachers required for the elementary schools, besides maintaining or assisting the present training colleges and teachers' centres, the Local Authorities must see to the proper equipment and staffing of these secondary schools. To induce the right kind of men and women to take up the teaching profession it was necessary, he said, that the profession should no longer be considered the dumping ground of the men and women whose only claim to be teachers depended on their having no capital; that the remuneration to be obtained should be at least as good as that obtained in other lines of life; and that the institutions whence these teachers were to be drawn must be informed in definite terms what was wanted. The training colleges at the present time provided a certain number of so-called "trained" teachers, but not a sufficient number. Many of the universities were trying to provide a number of "trained" teachers for secondary schools; but they hardly knew what was wanted. A very large number of men and women went to secondary schools without any educational training whatever, and only became teachers after making their own experiments on the scholars. To provide a sufficient inducement for the best men and women to take up the teaching profession would cost more than the Local Authorities could possibly afford. If the training of teachers, which, in his opinion, should be paid for from Imperial and not local sources, was thrown upon the Local Authorities, they would be absolutely crippled in their endeavours to supply or aid the supply of education other than elementary. For the first time in British history there was a chance of really creating a

sound system throughout the country for education as a whole. Until now one set of bodies had to do with elementary education, including the training of the teachers needed in the elementary schools; another set had to deal with technical education, but in both these cases the necessary funds to do the work properly had been largely wanting. There had been nobody, however, responsible for higher education. Each locality was a law unto itself. There was nobody whose duty it was to co-ordinate the different branches of education, to prevent overlapping and so to prevent woeful waste. For the first time there were bodies legally constituted whose duty it was to co-ordinate the different branches of education—the Education Committees in counties and boroughs. It was the advisers to these Committees who must initiate and devise the schemes whereby the co-ordination was to be brought about, and they would need all their vigour and strength when they really tackled the questions relating to higher education. Germany's technical education schemes had often been held up to them as models of what they should aim at. There was one point, at least, in which they should be guided by Gemany's example, and that was the training of the leaders of industry. If Great Britain was to keep her place among the nations, it was essential that the higher education of her future commercial leaders should not be neglected. It would be their duty to see that proper machinery was available for each and every side of education. But to render this machinery available there must be much money, and perhaps their most difficult task would be finding the sources of the money. The supply, or aiding the supply of all education other than elementary, must be paid out of (*a*) the Customs and Excise, *alias* the "whiskey" money, now definitely allocated to higher education; (*b*) a twopenny rate, and in some localities an additional penny, which may be levied, but which in agricultural districts will only be levied with very great difficulty, if at all; and (*c*) endowments. These moneys are to provide for (1) the maintenance of secondary schools of all types, (2) new secondary schools, (3) university and higher technical training, (4) technical, including agricultural and technological education, (5) scholarships and exhibitions for selected scholars, (6) the training of teachers. Their funds were nothing like sufficient. Unless they were able to obtain money from other sources, they must cut down their expenditure, and arrange that by means of scholarships and exhibitions they trained their teachers and supported their secondary schools and higher institutions. It was easier to cut down the contributions of a Local Education Authority with regard to higher education than to insist

on its proper provision; but the former led to national bankruptcy, whereas the latter brought its own rewards in the international struggle and assisted in increasing the sum of human knowledge. He believed it to be their duty as education secretaries and directors to insist on higher education being adequately supported and aided.

At the conclusion of the Chairman's address a long discussion took place in regard to Council's contracting with managers of voluntary schools in respect of payments for wear and tear during school hours and for incidental expenses out of school hours, and a resolution was passed thereon; with this the proceedings terminated.

ANNUAL MEETING OF THE ASSOCIATION OF TECHNICAL INSTITUTIONS.

The eleventh annual general meeting of the Association of Technical Institutions was held on Friday, the 29th January, 1904, at the Leathersellers' Hall, St. Helens Place, London, E.C., when 58 members attended from all parts of the country. In the absence of the retiring President, Sir John Wolfe Barry, the Right Hon. Henry Hobhouse, M.P., occupied the chair in the first instance and moved the election of the Right Hon. Sir John E. Gorst, M.P., as President for the ensuing year: this was carried unanimously.

Sir John Gorst, in delivering his presidential address, said that he had long been of opinion that there was nothing that tended more to cause confusion in administration and to obstruct educational progress in general than the attempt to divide education into three water-tight compartments, labelled "elementary," "secondary" and "technical" education. He had never known anybody able to draw a definite line between what was called elementary and what was called secondary education. And if they could not divide the education given to individual scholars, still less could they divide schools and institutions into elementary, secondary and technical. He knew of no place of education in this country where all three kinds of instruction were not simultaneously going on. No more satisfactory example of this truth could be found than in the London polytechnics where most excellent instruction was given in almost every branch of human learning. He was,

therefore, justified in saying that, as far as either reason or experience went, they must come to the conclusion that the spirit and principles of all these three kinds of education must pervade the whole life of the young boy and girl, at least up to the point at which university, as distinguished from school, instruction began. But in far the greater proportion of our elementary schools the three R's were taught on the old-fashioned plan, with the result that millions of children, when finally dismissed from school at the age of 13 or 14, three could neither read, write nor cypher. If they had acquired a small smattering of these things it disappeared a year or two after the cessation of their lessons. There were millions of children and young persons now in this country upon whom all the enormous sums annually spent out of the rates and taxes upon elementary education had been absolutely thrown away. Children were born into life with great intellectual capacity, with a most extraordinary curiosity to know; but they were endowed with a still more restless propensity to "do." The great object of the old-fashioned school drill appeared to be to repress entirely these natural propensities, which, if properly cultivated, would lead to intellectual development. They were crushed in the name of what was called "discipline." The great object of a school was thought to be to make children quiet and orderly instead of having them thirsting for knowledge and eager in its pursuit. The questioning natural to children was abolished in favour of answering questions put by the teacher, and in the answers anything like originality or eagerness was suppressed by the dictum: "Don't speak unless you are spoken to." After a certain time individuality was crushed out and the teacher had a quiet, orderly, stolid, stupid class, no longer a mass of earnest, inquisitive minds, but a machine which responded only when played on by the teacher. The children's legs, which were naturally inclined to move, were fixed upon one spot. He had known the case of an infants' school in which children had been kept standing for hours at a time on chalk marks made on the floor. Their little bodies were placed in desks which were often so constructed as to be positively injurious to the child's frame, and their arms, which would naturally be brandished about, were folded upon their chests so as to cramp and injure the action of the heart and lungs. He had seen in a punishment book brought from a school that very young children had been caned for the offence of "looking about in school." Did not a system like that, which really prevailed in an enormous number of the schools of the country, cry out for the intervention of the technical instructor? These children, whose chief characteristic

was restless activity, cried out to be taught something to do. The first instruction which should be given to a child should be instruction, not in thinking, not in learning, but in doing. He protested against a system under which babies of three or four years old were cooped up for hours at a time in what was called an infants' school, treated upon the same principle as the older children, and made to attend, to sit still and to do all kinds of unnatural things, instead of being allowed to play either in the open air or in a covered play-ground. He commended the method adopted in the schools of the United States, by which the young child was first interested in imitating natural objects. When instruction did begin it should not be of a routine kind, because that kind often disgusted children. Drawing and colouring would be better at first than the alphabet and the multiplication table. Then there was the favourite art which probably everybody in that room had in early life been addicted to—the art of making dirt pies, now called the study of modelling. It might be useful as a commencement of instruction, because it was interesting. People who had tried this plan maintained that children to whom it was applied read and wrote better at the age of eight, and after only one year's practice, than children subjected for several years to the old routine. Turning to higher education, he said that if it were impossible to divide our schools into primary, secondary and technical, how should they be classified? According to the length of time that scholars were to remain in them—a suggestion made by the Endowed Schools Commission 40 years ago. In all cases the instruction should be not special but general. He would put off specialisation to the end of school life, so that the mind and powers of the students should be sufficiently developed to enable them to profit by technical teaching. The great obstacle to the advancement of technical study, as of all other studies, was that the boy and girl were not properly prepared in the school before they arrived at that study. It would be a great mistake if the London polytechnics were made purely technological institutions, in which every other kind of learning and scientific pursuit were abolished or ignored. He, therefore, urged that a great effort should be made to get the utility of technical instruction recognised, both in the public elementary schools and in the secondary schools, as absolutely necessary to the perfection of the capacities of youth, whatever might be their future destination in life.

A vote of thanks having been accorded to the President for his address, the report of the Council was adopted. It shows that

the membership of the Association now embraces 67 of the chief technical institutions in the country. Particulars are also given which indicate that in the appointment of members of the Association as members of the new Education Committees under the Education Act, 1902, in towns where technical institutions are not under municipal control, representation has been granted to the constituent institutions.

Dr. R. M. Walmsley (London) gave an account of his recent visit to the United States in regard to the curricula and methods of staffing in higher technical institutions, and among the resolutions passed was the following :—

" That it is of the utmost importance that leaving certificates " for secondary schools should be granted, rendering unnecessary " the numerous examinations which now afflict secondary " education and that such certificates should entitle holders to " entrance to universities, to the technical colleges and to training " for the various professions and the Civil Service."

The eight vacancies on the Council were filled by the election of Principal A. E. Briscoe (West Ham), Dr. R. S. Clay (London), Dr. C. H. Draper (Brighton), Dr. H. Dyer, M.A. (Glasgow), Principal C. T. Millis (London), Dr. S. W. Richardson (Southampton), Alderman George White, M.P. (Norwich) and Mr. F. Wilkinson (Bolton).

Professor J. Wertheimer (Bristol) was elected Chairman of the Council of the Association, Mr. G. H. Pope (Bristol), Treasurer, in the place of Alderman R. F. Martineau (Birmingham), and Principal S. H. Wells (Battersea) to the post of Hon. Secretary in the place of Professor Wertheimer. In the evening of the previous day (the 28th January) the annual dinner of the Association was held at the Holborn Restaurant, when a presentation was made to Professor Wertheimer in recognition of his services during his term of office, which dated from the time of the formation of the Association.

NORTH OF ENGLAND EDUCATION CONFERENCE.

SECOND MEETING AT LEEDS.

The second annual Conference of persons in the North of England concerned in primary, secondary (including technical) and other forms of higher education was held at Leeds on Friday and Saturday, the 8th and 9th January, 1904. The Conference was promoted by a General Committee of about 240 members, the details being organised by an Executive Committee of 43 members, of which Alderman J. H. Wurtzburg, J.P. (Chairman of Leeds Education Committee), was Chairman: Messrs. W. Vibart Dixon (Clerk to West Riding of Yorkshire Education Committee), A. Smithells (Professor of Chemistry at Yorkshire College) and W. Packer (Secretary to Leeds Education Committee) acted as Joint Hon. Secretaries. As many as 2,100 invitations to the Conference were issued, and about 1,000 delegates and visitors attended the various sittings, those in the morning being combined ones held at Yorkshire College, and those in the afternoon being split up into three different sections, which were held respectively at the Pupil-Teachers' College, the Leeds Institute and the Philosophical Hall. The delegates and visitors were received, prior to the first sitting, at Yorkshire College by the Lord Mayor of Leeds (Mr. A. Currer Briggs) and the Lady Mayoress. The following is a summary of the programme as finally carried out :—

Friday, 8th January, 1904 :—

Subject.	Openers.
"Training of Teachers"	(*a*) Professor J. J. Findlay (Owens College); (*b*) Mr. A. C. Price (Leeds Grammar School); (*c*) Mr. A. J. Arnold (Pupil Teachers' Centre, Sheffield).
"Art Teaching"	Mr. Augustus Spencer (Royal College of Art, South Kensington).
"The Teaching of English"	(*a*) Hon. and Rev. Canon Lyttelton (Haileybury); (*b*) Mr. P. J. Hartog (London University).
"The Teaching of Classics"	(*a*) Professor G. G. Ramsay (Glasgow University); (*b*) Dr. W. H. D. Rouse (Perse School, Cambridge).

Saturday, 9th January, 1904 :—

Subject.	Openers.
" The Co-ordination of Schools "	(*a*) Mr. Harry Coward (Bristol, President of the National Union of Teachers); (*b*) Rev. W. H. Keeling (Bradford Grammar School); (*c*) Dr. Forsyth (Central Higher Grade School, Leeds).
" The Teaching of Music "	(*a*) Mr. Arthur Somervell (Board of Education); (*b*) Mr. T. P. Sykes (Bradford).
" Modern Languages "	(*a*) Mrs. Miall (Leeds); (*b*) Mr. F. Storr.
" Commercial Education "	(*a*) Professor J. H. Clapham (Yorkshire College, Leeds); (*b*) Mr. W. H. Barber (Leeds Modern School).

It will be seen that the above programme includes some of the most important educational questions that are demanding the close attention of Local Education Authorities at the present time. The papers submitted by the openers were full of suggestion and interest, and, together with the discussions, should contribute much to the assistance of all those engaged in educational organisation at the present critical juncture. Limitations of space preclude the possibility of dealing with the questions in these columns; reference must be made to the full report published by "The School Government Chronicle," which contains the communications of those speakers who were unable to express their views owing to lack of time. The chairmen secured to preside at the different meetings included—Principal N. Bodington and Professor Grant, Yorkshire College, Leeds; Professor M. E. Sadler, University of Manchester; Rev. J. R. Wynne-Edwards, Head-master of Leeds Grammar School; and Colonel Harding, J.P., Alderman Wurtzburg and Mr. W. C. Fletcher.

At a meeting of the General Committee held at Yorkshire College on Saturday morning it was decided to accept the invitation of Liverpool Education Committee to hold the Conference next year in that city.

BROCKHURST PREPARATORY SCHOOL, SALOP (SCHOOL-ROOM).

(*See page* 53.)

THE ORGANISATION OF SECONDARY EDUCATION AND THE ARRANGEMENTS UNDER CLAUSE VII.

(1) CORRESPONDENCE BETWEEN THE WILTSHIRE EDUCATION COMMITTEE AND THE BOARD OF EDUCATION.

I.

Education Department, County Offices,
Trowbridge, 5th October, 1903.

Sir,

I am instructed by my Committee to inquire what changes are contemplated by the Board in regard to the correspondence between secondary day schools, day science and art classes and pupil teachers' centres conducted in secondary schools, within the county, in view of Regulation 4 (a) in the Regulations for Secondary Schools.

Some of the secondary schools in the county conduct evening schools in their premises, and, if any method be adopted by which payment is made directly to the school in respect of the day work and to the county in respect of the evening work, it will lead to considerable confusion in local administration.

In view of the harmonious manner in which Clause VII. worked in this county, my Committee are anxious to retain complete control of all the correspondence with schools aided by them, and instruct me to point out that a change in the method of payment would lead to serious delay in paying the county contribution.

I am, Sir,
Your obedient servant,
(Signed) W. PULLINGER.

The Secretary Board of Education,
South Kensington, London, S.W.

II.

Board of Education,
South Kensington, London,
October 17th, 1903.

SIR,

Adverting to your letter of the 5th instant, I am directed to state that the procedure which obtained last year in regard to the transmission of Forms and the conduct of correspondence relating to secondary schools has been changed.

Under the provisions of § 5 of the Regulations for Secondary Schools, the governors or managers of any school or class must apply each year to the Board for recognition, and Forms of application for recognition have accordingly been issued direct to the local correspondent of each school which was recognised by the Board last session. It will, however, be observed that the Regulation provides for consultation with the Local Education Authority before recognition is granted.

When recognition is given, grants will be paid, as a rule, to the governors or managers, but where the Board have received a request from the governors or managers of a school, they will have no objection to make arrangements for the payments of grants through the Local Education Authority. In that case, correspondence strictly relating to the payment of grants would be conducted through the Authority, but all correspondence relating to the general business and conduct of the school would, as provided in Section 4 of the Regulations, be conducted through a person appointed by the governors or managers to act as correspondent with the Board.

The above is applicable to all schools and classes recognised under the Secondary Schools Regulations.

I am, Sir,

Your obedient servant.

(Signed) W. N. BRUCE.

The Director of Education,
County Offices, Trowbridge.

III.

Education Department, County Offices,
Trowbridge, 31st October, 1903.

SIR,

I am instructed to inform you that the General Education Committee at their meeting on October 30th, after consideration of your letter of October 17th, passed the following resolution :—

"That the Board of Education be requested to reconsider "their decision as to the methods of correspondence, reports "and grants with regard to schools working under the "Secondary Schools Regulations and to continue the practice "which prevailed under Clause VII. of the Board's former "Regulations."

The Committee wish me to add that the Country Council aided by advice and grants the creation of the existing secondary schools and that the relationship between the county and the local

managers has under Clause VII. been well established and is now understood.

I am also to point out the withdrawal of the correspondence of the Board with the local managers from the cognisance of the Committee would render it necessary for the Committee to adopt some other means for ascertaining the progress and conduct of their schools than they at present contemplate. It would appear inevitable that any Inspector appointed for this purpose would be apt, in ignorance of the Board's directions, to give instructions contradictory to those of the Board and their Inspectors. The schools would thus be serving two masters—both paymasters. The Committee are anxious to make the work of their officers complementary to that of the officers of the Board, not duplicatory.

The Committee are aware of the desire of the Board to make the responsibility of the local managers a real one, and would point out that this desire was fully anticipated and acted upon in this county some years ago.

I am, Sir,
Your obedient servant,
(Signed) W. PULLINGER.

The Secretary, Board of Education,
South Kensington, London, S.W.

(2) VIEWS OF THE ASSOCIATION OF DIRECTORS AND SECRETARIES FOR EDUCATION.*

County Offices, Chelmsford,
17th December, 1903.

DEAR SIR,

We beg, on behalf of the Executive Committee, to invite your serious consideration of the copy of correspondence between the Board of Education and the Wilts County Council, dated the 17th and 31st October, and which was sent you on the 28th November, with the minutes of the last meeting. The matter was before the Executive in London on the 6th ultimo, and the Association at the general meeting unanimously adopted the following resolutions :—

(*a*) While it is convenient that the Forms of the Board of Education, South Kensington, should be sent direct from the Board to local secretaries, it is essential to proper organisation and control by the Local Authority that all Forms and claims

* Circular letter issued by the Executive Committee to the members, approved and adopted by the Association at the 13th Annual General Meeting held on 6th and 7th January, 1904.

pass through the education office of the Local Authority on their way back to the Board.

(*b*) It is desirable that, except as regards non-local schools, all grants from the Board of Education for higher education should be paid through the Local Authority for Higher Education.

The situation was considered by the Executive of sufficient importance to warrant an immediate interview with the Board of Education, which was accordingly arranged, and a number of the Committee met Mr. Morant the same afternoon. The result of the interview was that, while the Board are ready to give full information to the Local Education Authorities of their dealings with secondary schools in their respective areas, the Board are not prepared to continue the procedure which has obtained under Clause VII., but will in future deal directly with the managers of schools without requiring the correspondence and Forms to pass through the county office. That is to say, the Board have rescinded the rule which made "acting in unison with" the County or County Borough Authority a condition precedent to the eligibility of a new school to receive Government grants, and have substituted a condition (which does not appear to be strictly observed) that the Board will "consult" the Local Education Authority before finally recognising a school, but reserves the right to recognise and aid a school, although such school may not be acting in unison with the County or County Borough Authority.

The practical inconvenience resulting from the cessation of information hitherto obtained by these Forms and correspondence passing through the county office, though very great, can, at any rate, to some extent be overcome in time and a new system instituted, but it is the policy underlying this administrative change which appears to the Executive Committee to be of serious import to all Local Education Authorities, and if persisted in will oblige the Authorities to reconsider their position in regard to the numerous secondary schools which are now in receipt of aid of one kind or another from county funds.

Apart from annual contributions, many County and County Borough Councils have made considerable grants in aid of buildings without seeking to bind the Governing Bodies of the schools aided as to any scheme of repaying of the sums granted; the close union under Clause VII. of the Board of Education and the County Councils was a guarantee to some extent that the Councils' funds were safeguarded. The change proposed would not only weaken this guarantee but might lead to a position on the

part of the school of complete severance from the Local Authorities' rule, in which they would be secure in the possession of capital grants, from local funds and of annual grants from the Board.

It appears to the Executive that the ultimate powers of the Board to deal with exceptional cases were well preserved under the old Clause VII., and they cannot but regard as singularly unfortunate the action of the Board in displacing at this juncture what had become a well understood and easily working arrangement by what will be generally felt to be an endeavour to weaken the newly-constituted Local Authorities in their relations to the secondary schools in their respective areas.

The Executive desire to be prepared to recommend a definite course of action to the Association at the annual meeting in January, but, before doing so, they would be glad if each member would carefully consider the foregoing statement, and, if possible, ascertain the views of his Committee upon the question at issue.

Faithfully Yours,

C. COURTENAY HODGSON, *Chairman.*

J. H. NICHOLAS, *Hon. Secretary.*

COMMERCIAL EDUCATION.

THE ESTABLISHMENT OF COMMERCIAL SCHOOLS AND COMMERCIAL DEPARTMENTS IN SECONDARY SCHOOLS.

In dealing with the questions which have been submitted to us for consideration and report, viz. :—(i.) the establishment of special commercial schools, and (ii.) the development of commercial departments in existing secondary schools, we desire to preface our recommendations by remarks of a general character, upon the best system of education for commercial life.

(1) We desire the line which has hitherto been drawn between "business" and the "learned professions" to be obliterated, and to have the former recognised as being as worthy of a liberal

* Essex Education Committee :—Report of a Sub-Committee on Commercial Education (consisting of Messrs. H. A. Dalton, R. D. Swallow and R. Wormell) of the Committee on Higher Education, adopted by the County Committee, 23rd November, 1903.

education as the latter: so that the best of our young men may be encouraged to business pursuits, not for the mere sake of making money, but for the sake of doing business in the best and most scientific manner, and thus aiding the growth and development of the trade of the country. It follows then that all professions should start with a common type of training up to the age of 15 without any special consideration of the superstructure which is to be built up on this foundation, but with variation according to personal ability, mental idiosyncracy and school environment or tradition. It is, for example, not advisable to compel all schools to teach Latin, nor for all boys in the same school to learn it. A smattering of Latin is of no educational value. The only difference will be, that in schools of the second grade, where boys must leave at 16, or even earlier than that, specialisation will begin earlier than in other schools where the leaving age is 17, or even 18. The former will provide for the rank and file of the business world, the latter will supply us with what have been called "Captains of Industry." But in either case there should not be any specialisation before the last twelve months of a boy's school career. This may sometimes be extended to four terms, owing to a delay in obtaining suitable commercial posts. We would, therefore, recommend that a boy should, as a rule, not specialise in commercial subjects before the beginning of the term in which occurs the 15th anniversary of his birth.

(2) It should at the same time be noted that in our best secondary schools sufficient attention is not always paid to habits of work which foster business capacity, and even what may be called business methods, in the boy. Not only are regular and punctual attendance essential, but the boy must be taught the importance of personal tidiness, which makes blotted fingers and thumb-marked or dogs-eared books impossible; of a systematic style of writing, of neatness in exercises and note books; of carefulness in having always at hand all he requires for work—pen, paper, blotter, mathematical instruments; of absolute regard for the rule of Polonius in the matter of books—"Neither a borrower nor a lender be." These business-like habits can be taught in a school of a classical type as well as in a modern or science school. Latin prose and the translation lesson are as effective to this end as mathematics or book-keeping or physical experiment. The opposite and bad habits have often to be unlearned when the special business training begins.

(3) The business man is to be educated by us to be a good citizen as well as a good wage-earner, or retailer or producer. More and more every year are business men controlling public

life, and, therefore, they must be educated in no narrow sphere, but where they will be brought into contact with boys of other aims and ambitions. Those humaner subjects must not be neglected which foster in the boy dreams of a great ideal of character, aspirations after the attainment of high place in the national life, and honour, truth and justice in all his dealing.

We are of opinion then that special schools of commerce are to be deprecated, and that the syllabus of the London Chamber of Commerce leaves much to be desired. It pre-supposes the initial training of the technical institute rather than of the secondary school. This, at any rate, so far as the junior syllabus is concerned. At the same time we are aware that neighbourhoods as well as schools differ, and of opinion that the Committee will be well advised to encourage those technical institutions of which they have control to play into the hands of the Chamber for the use of its examination and its possible improvement. It is, moreover, to be noted in this connection that special higher certificates are offered for success in single subjects. Continuation schools should be encouraged, by means of scholarships, prizes or otherwise, to attract young traders and clerks to study the subject and gain a certificate in it, which a short experience in the business house has suggested as of paramount service in a particular business career. The youngster, for example, who sees before him an opening in Spain or Greece should be able to learn the language which would enable him to secure the situation. So, too, boys in the higher secondary schools may be encouraged by the offer of scholarships, enabling them to prolong school life, to prepare themselves definitely for the study of commercial subjects as outlined in the higher syllabus. Such scholarships might be held in the school itself or in some other approved school for the purpose. Leaving scholarships tend to make such schools efficient in classics, mathematics and natural science. Similarly might their efficiency be distinctly secured in educating boys for commercial life.

But whatever plan be adopted to this end, do not let us have commercial schools, nor commercial departments, save in schools which keep boys to the age of 18; and to such department boys should not be eligible before the age of 15. That would serve to limit and narrow the outlook of commercial men. There are details in which the syllabus of the Chamber of Commerce might be improved. So far as its lower certificate is concerned, such scheme of improvement has been very carefully worked out by one of our number, and it might with the advantage of your Authority be pressed upon the Chamber. To the scheme for a higher

certificate other subjects might be added, such, for example, as "the use and abuse of credit" to serve for the prevention of ignorance and recklessness in borrower and to promote vigilance and sagacity in the lender. But for these defects experience will provide the remedy.

Suggestions for Amendment in the Scheme of the London Chamber of Commerce.*

(1) That in the syllabus of instruction all reference to special commercial subjects, such as history and geography treated exclusively from a commercial point of view, and book-keeping, should be omitted until the age of 15 is reached.

(2) That *either* (*a*) candidates for a junior commercial education certificate should be required to produce a certificate of having passed a previous examination of a standard not lower than the Oxford or Cambridge Junior Local Examinations, the conjoint Universities Lower Certificate Examination or the Second Class of the College of Preceptors; *or* (*b*) to obtain a junior commercial education certificate, it should be necessary to pass in the five obligatory subjects, viz.:—English essay, arithmetic, a modern foreign language, elementary drawing and elementary chemistry or physics, and in at least two subjects, each taken from one of the four optional groups, viz., mercantile, linguistic, mathematical, scientific, instead of, as now, two subjects both taken from one group.

(3) That Latin should have equal rank with other subjects in the optional linguistic group.

(4) That in the examination for senior commercial certificates, of the two optional subjects to be taken, one should be either advanced mathematics, or Latin, or chemistry or physics.

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* See report in regard to this scheme presented to the annual meeting of the Association of Directors and Secretaries, p. 103.

THE GIRLS' HIGH SCHOOL, BEDFORD. (*See page* 132.)

VII.—REVIEW.

HIGHER EDUCATION IN RURAL COUNTIES.

REPORT AS TO A SCHEME IN BEDFORDSHIRE.

A very valuable report upon the whole question of higher education in all its bearings has been issued recently by the Bedfordshire Education Committee, having been submitted previously to the County Council, and certain action is already being taken upon the lines advocated in the report. A Prefatory Memorandum contains an interesting statement upon secondary education generally, and discusses the essential facts which should be recognised by all Local Education Authorities in approaching the important problems that require solution in that particular field: the text of this Memorandum is consequently largely reproduced in this review. The other sections of the report deal with the application, more particularly to local circumstances, of the principles laid down in the Memorandum, and consequently they are more freely abridged in this review. The sections deal respectively with (1) the special conditions of the county of Bedford; (2) proposals contemplated under Part II., Section (2) of the Education Act; (3) a scholarship scheme; (4) the training of teachers, the Committee's views upon which subject are embodied in the special Section on pp. 18-28; and (5) the estimated cost.

General Considerations as regards Secondary Education.

ITS NEGLECT AND GENERAL AIM AND THE DUTIES OF LOCAL AUTHORITIES.—The adequate provision of efficient and suitable secondary schools, affiliated with one another so as to avoid unnecessary duplication, and co-ordinated, on the one hand, with elementary schools, on the other, with universities and technological institutes, is the important function assigned to Local Education Authorities under the Education Act, 1902, Part II.

Of recent years much has been done at either end of the educational scale; very little has been done in the middle. In secondary education the country is most in arrear and has most leeway to make up. It is here, therefore, that the duties of Local Education Authorities become not merely administrative but creative. Here their work is practically optional, and there is consequently danger lest it should be done unevenly and unsystematically. Here also a demand has not only to be supplied but, to a certain extent, created, and, with limited funds at the disposal of Local Education Authorities, it is possible that the work may be starved or neglected.

Itinerant lectureships and temporary classes have awakened interest in secondary education, have provided useful instruction, and, in outlying districts, may prove, for some years to come, the only available educational agencies. But experience shows that permanent institutions are of higher value than expedients which are, in a sense, casual and ephemeral. The policy of Local Education Authorities should, therefore, aim at permanent foundations. It is also essential that their policy should be continuous. . . . . On both these

grounds it is imperative that in any steps which Education Authorities may take to supply the deficiencies of secóndary education, they should make sure of their principles, in order that the work—necessarily a slow and patient work—may be gradually expanded on definite lines towards an ascertained goal.

Equality of opportunity, so far as equality is attainable, should be the ultimate aim of the Education Authority. Secondary education may be intermediary or final. In one or other of these respects, secondary schools should serve as links between the lowest and highest stages of instruction, grades of advance from the alphabet to the application of skill and learning to industries and professions, ladders by which the children of the poorest wage-earning classes may have a chance of reaching the topmost scale of education. . . .

It may clear the ground of discussion if an attempt is made to explain the grading of secondary schools, and to define their relation to higher education, collegiate and technological, to technical instruction and to elementary education. The first two are embraced in secondary education; the third dovetails into it in such a way that no definite line of demarcation can be traced.

THE GRADING OF SECONDARY SCHOOLS may seem to be a piece of educational pedantry. It is not so in reality; . . . the distinction is not social, but entirely educational.

Secondary schools in America are, for the most part, real continuation schools, beginning the work at the age where the elementary school ends, viz., at 14, and carrying forward that instruction to its appropriate finish on the same general lines. To the same class belong the *ecoles primaires superieures* of France and other Continental countries. In England and on the Continent secondary schools proper are generally understood to be grammar or intermediate schools, which receive their pupils at seven or eight years of age, are not only responsible for their primary education, but from the first adopt a broader curriculum than the elementary school by commencing at those ages the rudiments of advanced subjects such as French, Latin and mathematics, which form necessary parts of a secondary course but are not considered essential to the completion of an elementary education. The transition from elementary schools to secondary schools of the American type is easy. It is difficult to secondary schools of the English type, and the difficulty is necessarily enhanced if they are of the 'first grade.' Secondary schools are graded according to the age at which pupils leave them. At 'first grade' schools, boys are educated up to the age of 18 or 19; for 'second grade' schools, the limit of age is 16 or 17; for 'third grade' schools, it is below 15. Practically, 'third grade' schools are non-existent. There remain, therefore, 'first and second grade' schools. In both these classes of schools the plan of the educational course is regulated throughout by the particular period at which it is supposed to end, as well as by the career in life for which the student is destined. Moreover, pupils cannot with any advantage to themselves, intellectually or morally, enter a school in which, as they know from the first, they cannot, owing to the period of their leaving, reach the higher Forms. For one or both of these reasons, it is better to have two separate schools than to attempt to make one school do two different kinds of work.

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THE RELATION OF SECONDARY SCHOOLS TO COLLEGIATE AND TECHNOLOGICAL EDUCATION.—In its relation to higher education, secondary education . . . is intermediary or preparatory. Without sound preparation in schools other

than elementary, pupils cannot profit to the full by the higher training provided in colleges or institutes. Experience has proved that the most urgent need of the country is a sufficient number of students . . . that . . . can take advantage of higher education. Unless secondary schools can provide well-prepared pupils of proved capacity, disciplined intelligence and ascertained knowledge, the funds expended on the creation and maintenance of universities and institutes are comparatively wasted both as regards pupils and teachers. The staff of these higher educational authorities are forced to expend their energies on work which should have been done before the students came under their hands. Instead of building the superstructure, they are obliged to labour on the foundations. Their true province is necessarily neglected. . . .

Your Committee do not recommend the expenditure of any money on the local establishment of universities or technological institutes of the highest class. . . . The advantages of such institutions can be best obtained by co-operation in those foundations that already exist. . . . (See recommendations under 'Scholarships,' pp. 135-6.)

THE RELATION OF SECONDARY SCHOOLS TO TECHNICAL INSTRUCTION.—After pointing out the position of technical instruction, as embraced within the range of secondary education, under the Act of 1902, by the removal of all the restrictions imposed by the Technical Instruction Acts, the report proceeds:—It is now impossible to confine "education" to the discipline of character and faculty by means of the so-called humane studies, and to deny the title to instruction in the practical arts and crafts of bread-winners. Education now comprehends everything which trains the faculties by the communication of knowledge, everything which forms men and women capable of accomplishing something in life. Whether the faculty so trained is the logical process of the reason, or the power of imagination, or the technical skill of eye and hand, the training is education.

But the principle which underlay the old distinction remains true and is implicitly recognised in the Act. Technical instruction is not secondary education, but is embraced within it as a specialised branch of an education which, to be complete, must include scientific and literary subjects. Secondary education, during the most formative years of a pupil's life, must be general in scope and liberal in character, if it is to be really an effective preparation for subsequent technical instruction. It should not be specialised at too early a period. Children should not be trained in any particular trade, profession or calling before the age of at least 15. The acquisition of manual aptitude, that is to say, of dexterity in the use of tools and appliances, may begin at any age. But technical instruction, in the sense of the concentration of a limited side of scientific principles on a particular profession, trade, art or industry should not begin too soon. The danger of the present day is that boys or girls, attracted by the premature, but immediate, pecuniary rewards of university scholarships or of technical proficiency in industrial crafts, are tempted to adopt, at too early an age, a special course of study. Neither classics, nor modern languages, nor mathematics, nor science provide an adequate training, if taught alone or disproportionately. Each study may be so pursued as to narrow the aims and contract the views of pupils: either by itself may produce a growth which is undeveloped, partial and stunted.

. . . But the point which the Committee wish to emphasise here is the necessity that all secondary education for young persons under the age of 16 (except in the case of evening continuation classes), which is recognised by the Local Education Authority, should be of a sound, general and liberal character, not exclusively scientific or literary and not prematurely specialised.

THE RELATION OF SECONDARY SCHOOLS TO ELEMENTARY EDUCATION.—Where the Education Act of 1902 has purposely left the scope of secondary education indefinite, it may seem superfluous to attempt to distinguish it from elementary education. In theory it might be advisable to draw the line of elementary education more sharply, to restrict it to the rudiments and to allot all that lies outside it to the domain of secondary education. But this is now impossible. If, when the Elementary Education Act of 1870 was passed, a coherent system of public secondary education had been simultaneously thought out and organised many subsequent difficulties might have been avoided. Now, however, we have to deal with the results of the haphazard growth of our educational establishments, which have adapted themselves to practical needs as and when those needs arose. No logical division is now possible. But the Act establishes different authorities in certain cases for the two kinds of education, and it prevents the Local Education Authority from making scholarships tenable in higher elementary schools. The distinction, therefore, continues to be essential so long as the divided authority and the restriction remain part of the Act.

Secondary and elementary education necessarily overlap. In any table of specific subjects taught in elementary schools, places may be found where the curriculum seems to infringe upon the domain of secondary education. . . . Nor can the line be drawn at the subjects taught, for all are comprised in the Education Code as necessary for a good and complete course of elementary instruction. The division really lies in the stage of proficiency attained in a particular subject, or in the respective objects at which the instruction aims, or at the somewhat indeterminate point where education ceases to be an end and becomes a means. . . .

Though there is overlapping between elementary and secondary education, it would be a fallacy to suppose that the respective courses of instruction are continuous or concurrent, or that pupils can pass readily from one to the other. . . . The elementary instruction may be subsequently supplemented by those kinds of specific education which are afforded by evening continuation classes. But it is important to insist upon the facts that educationally the present aim of elementary instruction is narrower: that it consequently has a greater tendency to run into grooves and to become stereotyped; that there are essential differences between the existing courses of education laid down for elementary and secondary schools; and that, after a certain age, pupils can only pass from one to the other with disadvantages which are minimised, but not removed, in the case of exceptionally clever pupils.

Your Committee wish to draw special attention to these differences for three reasons. (1) In certain circumstances, and in crowded centres of trade, higher grade or ex-Standard elementary schools, which carry instruction in the subjects mentioned by the Education Code beyond Standard VII., have supplied a demand. But . . . in a county like Bedford, the want, which is evidenced elsewhere by the existence of such schools, is best supplied by a secondary school, and that, in any given district, if established in any, the two types of school cannot co-exist. (2) The difference between elementary and secondary courses of instruction, for the present at all events, have an important bearing upon the question of the age at which promising pupils may, with greatest advantage to themselves, be transplanted from elementary to secondary schools by means of scholarships. (3) In providing for the training of teachers in secondary schools (see Section II., pp. 18-28), it is essential that candidates for the post of pupil-teachers should pass from elementary schools at as early an age as possible into the secondary school.

THE IDEAL OF SECONDARY EDUCATION FOR A RURAL COUNTY.— . . . The ideal is a coherent, well-distributed scheme of supplying an adequate number of secondary schools, the efficiency of which is guaranteed by public recognition, adapted to the needs of the district, whether urban or rural, staffed by qualified teachers, equipped with suitable buildings and appliances, offering at reasonable fees a sound literary, scientific and practical education for boys and girls, providing instruction in courses methodically laid down according to the ages at which students may be expected to leave school and to their probable careers in after life. In other words, there should be provided convenient access for all classes and from all districts in the county, to

(1) A 'first grade' secondary school, competent to prepare young persons up to the age of 18 or 19 for the universities, the highest technological institutes and the so-called learned professions;

(2) A 'second grade' secondary school, affording a sound, general and practical education to young persons, destined for some form of industrial or commercial life, up to the age of 16 or 17, in the subjects approved by the Board of Education (Regulations, 1903-4, Sections 20-23);

(3) A sufficient number of scholarships and free places passing scholars of exceptional ability from elementary and other schools, tenable at either (1) or (2), and even carrying them on to the universities or technological institutes, and so graded as to encourage parents of the wage-earning classes to seek for their children an education prolonged beyond the period at which boys and girls, if withdrawn from school, might be earning wages;

(4) Adequate continuation evening schools, in some senses corresponding to the old 'third grade' secondary schools, in others representing higher grade elementary or ex-Standard schools, together with organised science schools and technical institutes, at which young persons, who had left elementary schools at the age of 13 or 14, and were not of such marked ability or such rapid development as to win scholarships, might continue their education up to the age of 20 and even 25—these schools should supply a training in the higher handicrafts, by enlarging the education of the elementary school, and applying scientific principles to practical industries through manual instruction—for pupils who distinguished themselves at these schools there should be scholarships at agricultural or horticultural colleges, at trade schools or technical institutes, as well as apprenticeships to trades or manufacturing works.

ESTIMATE OF DEMAND FOR SECONDARY EDUCATION.—Experience shows that, if means of secondary education are persistently supplied, a demand is developed, the percentage of students steadily increases and the general standard of educational needs gradually rises. . . . If conferences of persons concerned and interested in secondary education could be arranged, a closer estimate might be formed of the extent of the existing demand and of the deficiencies in the existing supply, and some steps might be devised for its development to meet the special needs of urban and rural districts as well as of particular localities. It may be added that the grouping of rural schools forms a starting point from which, in the future, the secondary education now supplied by evening continuation classes and peripatetic lectures, or rendered available by means of scholarships, might be supplemented locally and permanently at centres convenient of railway access.

. . . The demand for secondary education varies so largely with the character and wealth of the population, and so closely depends upon the quality and cost of the education offered, that no general principles of calculation can be attempted. For the present, therefore, with the exceptions hereafter mentioned, no steps can safely be initiated by the Education Authority to establish new

institutions. It should, however, be prepared to encourage local efforts, to consider applications for the permanent foundation of secondary day schools from boroughs, urban districts or groups of rural schools, to hold inquiries on such applications, and, if found advisable, to afford pecuniary assistance either by annual contribution or by capital expenditure on terms and conditions calculated to secure the public efficiency of the aided institutions.

Special Conditions of the County of Bedford.

Upon the basis provided by the tabulation and classification of the statistics relating to the various classes of the population and how it is engaged in various industries and employments, the following conclusions are given :—

CHILDREN REQUIRING SECONDARY EDUCATION.—. . . The Local Authority is responsible for the education of 55,292 boys and girls between the ages of five and 19. The proportion of these who will require, and are suitable for, secondary education is a point which cannot be ascertained without careful statistical inquiry. The calculation is complicated by the facts that the demand ought, in many localities, to be created by making a supply, and that the question of fees is often one of supreme importance. An estimate was formed by the Schools Inquiry Commission that the proportion was 16 per 1,000 of the population. The calculation was for boys only, and it probably now requires to be, on the one hand, reduced owing to the higher standard attained by elementary education, and, on the other hand, raised because of the growing recognition of the importance of higher education. Taking the estimate for what it is worth, it means that about 2,800 children are eligible for secondary education, and that the number, which reaches its *maximum* between the ages of ten and 16, is at its *minimum* between those of 17 and 19.

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"The educational needs" of the county include not only the *amount* of the demand, as evidenced by the number of persons requiring education, but also the *nature* of the demand, as indicated by the character of the population and of the occupations which are represented within its borders, *i.e.*, by the predominant industries.

The Census Returns (1901) . . . show that five-ninths of the population are urban and four-ninths are rural. The predominant character of the county, therefore, is agricultural. Agriculture slightly preponderates over the straw hat and bonnet and plait manufacture, and in its numerical importance largely exceeds any one of the other industries in which the urban population is occupied. . . .

FUNDS AVAILABLE FOR HIGHER EDUCATION.—Apart from a capital sum of £8,310 standing to the credit of the county on the 31st March last, these may be summarised as follows:—(1) £5,500 per annum from the Residue Grant; (2) £7,154, the proceeds of a twopenny rate leviable under Part II. of the Education Act; (3) grants from the Board of Education; (4) students' fees; (5) endowments; (6) the proceeds of rates leviable by the three Town Councils and the four Urban District Councils in the county.

THE PRESENT PROVISION FOR SECONDARY SCHOOLS.—Excluding proprietary and private schools, there are 2,124 scholars attending the five public secondary schools, of which four are situated in Bedford. There are at least 1,620 students attending evening schools under Local Committees in urban centres, besides over 1,000 students in 59 rural evening schools. The five secondary schools which are situate on the borders of Bedfordshire in neighbouring counties should also not be overlooked in any consideration of the existing facilities available,

Proposals for Higher Education and for General Co-ordination.

GENERAL CONDITIONS.—In the absence of any statutory conditions in supplying or aiding secondary education, the Bedfordshire Education Committee have made the following decisions, those bearing upon the question of representation and exhibiting their relations with "private-profit" schools being of special interest:—

(1) That no school or institution should be aided, or recognised as efficient, unless the accounts are presented in a form acceptable to the Local Education Authority, that form, in the case of proprietary or private schools, including only the salaries of assistant-teachers and the expenditure of sums granted by the Local Education Authority;

(2) That, provided adequate inspection is secured, it is not essential that the Local Education Authority should be represented on Governing Bodies, and so become partially responsible for the existence of conditions the control and modification of which are within their functions;

(3) That, where possible, the Local Education Authority should make or refuse grants to schools which are conducted for private profit in the same way and on the same conditions as such grants are made or refused to schools conducted on a purely public basis.

SECONDARY DAY SCHOOLS.—*Recognition of Efficiency.*—All existing secondary day schools should be maintained which either are efficient or can bring themselves up to the standard of efficiency. Certain requirements of efficiency are laid down by the Board of Education (Regulations, 1903-4) as conditions precedent to participation in the grants for secondary education administered by the Board. Schools conducted for private profit (Section 4a) are not eligible to receive grants so administered. But your Committee do not desire to secure for public secondary schools a monopoly of the education of the county. . . . The best proprietary or private schools have been, in the past, pioneers of educational improvement, and their continued existence, efficiency and rivalry will diminish the risk of stagnation or rigidity in the public management of schools. They do not, therefore, propose to exclude those proprietary or private schools which apply for recognition by the Local Education Authority from the advantages arising from the administration of local funds to which they are admitted under the Education Act, 1902.

The conditions on which existing or new secondary day schools, public and private, will be recognised as efficient and eligible to receive aid from the Local Education Authority will, in substance, be the same as those on which grants are awarded by the Board of Education. In other words, all secondary day schools which satisfy the requirements of the Board in respect of public secondary schools . . . will be recognised as supplying efficient secondary education in the district that they serve.

The efficiency of existing secondary day schools is, therefore, a matter for careful preliminary inquiry. Such an inquiry must take into consideration the condition and suitability, sanitary and otherwise, of the premises, the sufficiency of the apparatus and equipments, the adequacy of the curriculum, the character and quality of the instruction, the proportion of teachers to pupils and kindred subjects.

Method and Character of Inspection.—Inspections of the administration of a school, the condition of its buildings and the quality of its instruction will be conducted by the Board of Education . . . on the application of the Governing Body, at a charge calculated on the number of students. . . . An inspection of the secondary schools in the county, public, endowed, proprietary

and private, which apply for recognition, except as hereafter mentioned, is a necessary preliminary to any definite action of the Education Authority, and . . . the expenses of such an inspection, whether carried out by the Board of Education or by an educational expert appointed for the purpose, should be borne by the Education Authority. The inspection should be sanitary, administrative and educational. It should include (1) the efficiency of the schools in the drainage, air-space, light, adequacy and convenience of the buildings and playgrounds; (2) the constitution of the Governing Body, the keeping of accounts, the relation of the head-master and head-mistress to the Governors and of the under-masters and mistresses to their chiefs; (3) the subjects of the curriculum, the number, proportion and qualifications of the teaching staff, the suitability and sufficiency of the apparatus and equipments. The sanitary inspection should be made by the County Inspector. . . .

So long as an aided school is recognised as efficient, it must be open to inspection. But your Committee consider that the Bedford Grammar School for Boys and the Bedford High School for Girls should be placed on the County Register of recognised schools; that, at the discretion of the Local Education Authority, complete and independent inspection, as a preliminary condition to recognition or aid should be dispensed with, in whole or part, in the case of other schools of established reputation and undisputed utility; and that an annual report, embodying the results of the administrative and educational inspection made by an authoritative examining body, *e.g.*, the universities or the College of Preceptors, should be accepted as a public guarantee of continued efficiency. They make this recommendation on the ground that the greatest possible liberty, variety and elasticity should be allowed in the methods, plans and scope of the various schools. For the same reason, they do not recommend any attempt to lay down any prescribed code or table of subjects, though the time-table and the course of instruction will necessarily be comprised in the annual report, which should also include an annual statement of the salaries paid to the assistant-teachers and of their professional qualifications.

Proprietary or Private Schools, satisfying these requirements and fulfilling these conditions, will be placed on the Council's list as efficient and as contributing to the local supply of secondary education in the area from which their pupils are drawn. They will be eligible for assistance by the Education Authority; scholarships founded by the Education Authority will be tenable at them, and their pupils will be open to compete for any scholarships administered by the Education Authority, subject to any regulations prescribed by that Authority. *Mutatis mutandis*, the same requirements and conditions will be demanded from all public secondary day schools which may be recognised or aided by the Education Authority.

Nature and Conditions of Aid.—It is obvious that one form of aid which the Education Authority may make to public secondary schools, viz., capital grants for buildings, is scarcely applicable to private schools. But the Committee are prepared to receive and consider from all recognised schools, public and private, applications for capitation grants, for the supply of teachers and for capital grants for the supply and upkeep of fittings, apparatus and appliances for instruction. In all cases where grants of the latter class are made, no extra fees should be charged in respect of the instruction, the Education Authority should retain a lien upon the fittings, apparatus or appliances to the cost of which they have contributed, and a contract should be entered into with the proprietors, Governors, managers or Trustees for their return in case the school ceases to be recognised as efficient.

In making capitation grants, . . . grants should not be made in respect either of pupils whose education, owing to their age or backwardness, is necessarily such as could be obtained in the Standards of elementary schools, or of pupils residing outside the county . . .

A double capitation grant should be paid on a limited number of boys or girls selected by the Education Authority who have been for not less than two years in Standard V., VI. or VII., at a public elementary school or are pupils in any recognised secondary schools in the administrative county, provided that the authorities of the secondary school shall remit the extra amount so received from the fees charged to parents or guardians in respect of the selected boys or girls

. . . In making any capital or capitation grants, or in supplying teachers to public or private secondary schools, it should be made a condition that a number of free places in the aided school, proportioned to the amount of the grant, should be placed at the disposal of the Education Authority for the benefit of pupils in the elementary or other schools of the county.

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EVENING SCHOOLS.—Under the regulations adopted last year the report urges that such schools on permanent lines should be established in every parish in the urban and rural districts in the county, and it is desirable that managers of elementary schools should take such steps as will best ensure that scholars about to leave their care should have full information as to the times and places at which evening schools are held.

Much of the instruction imparted in evening schools is, at present, of an elementary character. . . . If these schools only prevented young persons from forgetting lessons imperfectly learned they would be of value. But if boys and girls passed at once from the elementary school into the evening school, . . . the evening school might then become a genuine continuation school, and discharge its real function of carrying forward the pupil's studies beyond the highest instruction obtainable in the primary stage of education . . .

To encourage evening students to pursue systematic courses of instruction, approved by the Education Committee, in special lines associated with their particular trade or employment, . . . 20 scholarships of the annual value of the cost of tuition, and of books and appliances up to the value of £3, and, where necessary, railway expenses, should be offered to evening students between the ages of 15 and 20, ordinarily resident in the county, who have made three-fourths of the possible attendances during a period of not less than two years at an evening class or school conducted by the County Education Authority, and, in the year of their application, obtained a first or second class in the examinations conducted by the Midland Counties Union of Educational Institutions. The scholarships should, in the first instance, be tenable for one year, but might be renewable, at the discretion of the Education Committee, on satisfactory evidence of progress and conduct. (See also proposals under "A Scheme of Scholarships" pp. 134-6.)

The conditions upon which the management of evening schools should be conducted are then set out in the report in some detail: these cover the duties and the composition of bodies of managers, the remuneration and qualifications of the teachers and the grants offered to Local Committees for technological classes registered under the City and Guilds Institute. . . . It may hereafter become necessary to organise a staff of teachers, whose services could be made available at recognised secondary day schools aided by the Local Education Authority or at evening schools or classes conducted by that Authority. . . .

A Scheme of Scholarships.

In order to place the advantages of secondary education, as far as possible, within the reach of all classes of the community, the cost of tuition will be made as moderate as may be found compatible with the maintenance of a high standard of efficiency. To promote the same object still further, the Committee propose—(*a*) to establish junior scholarships, 'free places' and 'assisted places' at local secondary day schools recognised by the Local Authority as efficient; (*b*) to create senior or major scholarships which will carry forward the ablest pupils to places of higher education approved . . .; (*c*) to foster the predominant industries of the county by special technical scholarships or apprenticeships.

JUNIOR SCHOLARSHIPS FOR BOYS AND GIRLS.—These should be placed within the reach of the poorest parents, but should only be awarded to children of exceptional ability, and not to those who are only of average capacity. To attract the classes which your Committee desire to reach, it is necessary to undertake not only the education but the maintenance of the scholar, especially after the age at which he or she becomes capable of earning wages. Various plans of selecting scholars have been . . . suggested. Scholarships may be awarded upon the recommendation of teachers, subject to the pupil having attained a qualifying standard, or by open competition, or by a combination of the two methods of selection and competition. Your Committee . . . consider that open competition is the most satisfactory mode of awarding scholarships. . . . But though the competition should be open, it is desirable that, in one respect, it should be restricted. The standard of education for rural and for urban districts is not the same, and the scholarships should be competed for on slightly different conditions by town and country children.

The value of competitive examinations, as a means of testing the powers of candidates, diminishes with the decrease in the age of the pupil. It is useless to subject very young children to stiff examinations. All that can be done is to test their intelligent habits of thought. On the other hand, if children are admitted into secondary schools above the age of 13, they are unduly handicapped by their ignorance of the subjects which form part of their new curriculum.

The examination scheme of the Head Masters' Association, which is briefly described, is advocated for adoption. The chief conditions attached to the scholarships are—that candidates must have been for not less than two years pupils at elementary schools in the county, in Standard V. at least if in a rural district, or Standard VI. at least if in an urban district, and not be less than ten or more than 13 years of age on the first day of the month in which the examination is being held (candidates from rural districts will not be required to compete against those from urban districts); that before the final award the first 18 candidates must attend for personal examination at Bedford.

The value of the scholarships (if the school selected is within two miles of the scholar's home) will comprise tuition fees, the cost of necessary books and appliances and, where necessary, a maintenance grant of not less than £5 paid to the parent or guardian. Where the school is accessible daily, but beyond the two miles radius, an additional sum, equivalent to the expense of conveyance to and from school will be paid, and, where the school is not accessible daily, an allowance towards board and lodging in addition to school fees; where board and lodging and fees are paid, no sum is paid to the parent or guardian. Payments to schools of fees, etc., will be made direct. The scholarships are tenable in the first place for two years and renewable; not less than six for boys and four for girls will be awarded annually.

FREE PLACES.—If the recommendations already suggested on pp. 131-3 are accepted . . . a considerable number of 'free places' at day secondary schools will be available for distribution. . . . These should be distributed upon the same examinations as the minor scholarships, and on the same conditions except—(1) that candidates must have been for not less than two years either upon the register of an elementary school or a pupil in a recognised secondary day school in the county; (2) that no maintenance grant will be paid; (3) . . . the value will cover the cost of tuition only; (4) that the holder must be the child of a parent ordinarily resident within the county.

ASSISTED PLACES.—A limited number of 'assisted places' will be available under the recommendations on p. 133 for double capitation grants. It is suggested that these should be distributed among the same classes as are eligible for 'free places' in consultation with the head-master of the school in which the 'assisted free place' is held.

SENIOR SCHOLARSHIPS should be offered to enable boys and girls of exceptional ability to proceed from . . . recognised secondary schools to any university or any university college in the United Kingdom, or any foreign university or foreign technical school, or any other institution providing higher education which might be selected by the students, and approved by the County Authority. . . . The following scholarships should be offered:—two each annually of the value of £60, £45, £30.

. . . The opinion of the Advisory Committee, consisting as it does of educational experts, administering the chief educational institutions of the county, should be taken upon the subjects which most require encouragement by means of scholarships and upon the proportion in which they should from time to time be distributed between boys and girls. They also consider that the allotment of the scholarships to specific subjects, as well as their proportionate distribution, should be subject to triennial revision.

Candidates must be not more than 18 years of age in the case of boys and 19 years in the case of girls. . . . must be . . . not less than three years in . . . recognised secondary day schools . . . and . . . the children of parents ordinarily resident within the . . . county . . . The scholarships should be tenable for two years, renewable for a third and (in exceptional circumstances) a fourth year. . . .

* * * * * *

The following important concession is also to be made:—the limit of age will be extended to 20 years in the case of candidates—male or female—who have not been scholars in a recognised secondary school in the county, but who have made three-fourths of the possible attendances at an evening school or class conducted under the County Education Authority during a period of not less than two years.

SCHOLARSHIPS FOR AGRICULTURE AND KINDRED SUBJECTS.—These are considered in the report in connection with the larger question of agricultural education as a whole, which includes the expansion of the existing County Farm School at Ridgmont and the development of a kind of agricultural or rural side at Dunstable Grammar School. The specific recommendations for such scholarships at present are as follow:—

To encourage the systematic study of agricultural subjects at evening schools and special classes . . . not less than ten scholarships (six for men and four for women) of the value of the cost of tuition fees, railway expenses and £2 10s. for maintenance, be offered at Ridgmont Institute during one or other of the four weeks' terms . . . to students ordinarily resident in the . . . county,

who have made three-fourths of the possible attendances at such schools or classes, and gained a first or second class in the examinations conducted by the Midland Counties' Union of Educational Institutions in agriculture, horticulture, elementary rural science, mensuration, domestic economy, 'nature-knowledge' or kindred subjects.

. . . Also one senior scholarship, tenable for two years at an agricultural college approved . . . , of the yearly value of tuition, board and lodging, or of tuition and £40 for books and maintenance, be offered for competition among the pupils of any recognised school of science in the county taking the special course for schools in rural districts, provided that the candidates are the sons of persons ordinarily resident in the county . . . and are not less than 17 or more than 19 years of age in the year in which the examination is held.

SCHOLARSHIPS AND TRAINING FOR TRADES AND INDUSTRIES.—In this connection special training will have to be provided for teachers as well as students. The question requires decision as to how far firms could be induced to receive as pupils lads of special capacity between the ages of 15 and 16 years educated in elementary or secondary schools.

* * * * * *

. . . One scholarship should be offered annually to boys similarly educated and qualified, and between the same ages, tenable for two years at Bedford Grammar School, half the scholar's time to be spent in the workshop, half in classes where he would receive instruction in mathematics, physics and drawing. The value of the scholarship should be the cost of tuition, books and necessary appliances and a sum not exceeding £10 for maintenance.

* * * * * *

The other recommendations in this connection include the foundation of two county scholarships—one of the annual value of £60 tenable for two years at the National Art Training School, South Kensington, or at any other approved art school in Great Britain or on the Continent, . . . for competition among the students (male and female) of recognised art schools . . . and one . . . at any approved chemical institution in Great Britain or on the Continent . . . to students in the recognised secondary schools or technical institutions . . . ; and of a number of free studentships, proportioned to the amount of the grant contributed by the Local Authority to the art schools or technical institutions, reserved for disposal by the Committee . . .

Estimated Cost of Proposals.

The following is a summary of the estimated cost of carrying out the foregoing proposals :—

Scholarships, £1,155 ; secondary schools (fixed and capitation grants), £1,250 ; technical institutes, £1,500; evening schools, £2,750; county staff teachers, £825; training of teachers, £1,100; administration, £1,000; total, £9,580.

The estimated income would be derived as follows :—Residue Grant, £5,500; grants from Board of Education for evening schools, £1,400; fees, etc., £300; to be raised by rate £2,380 (a rate of three-farthings produces £2,682) ; total, £9,580.

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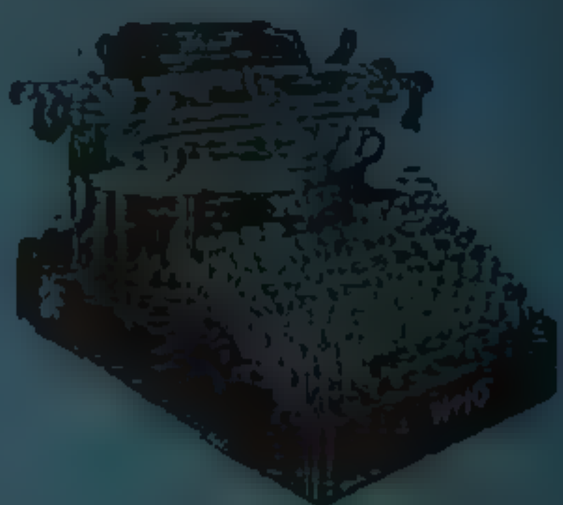

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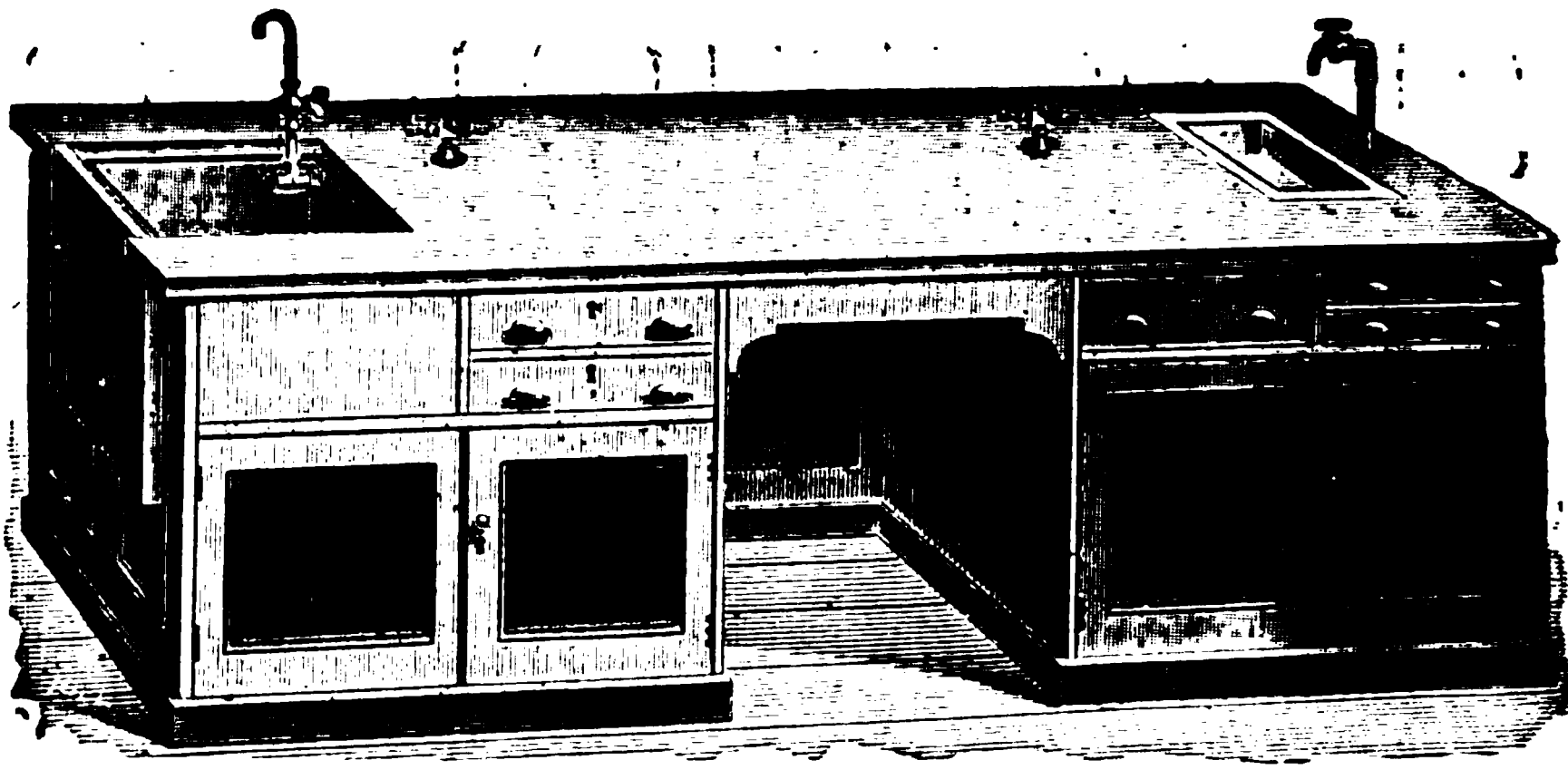

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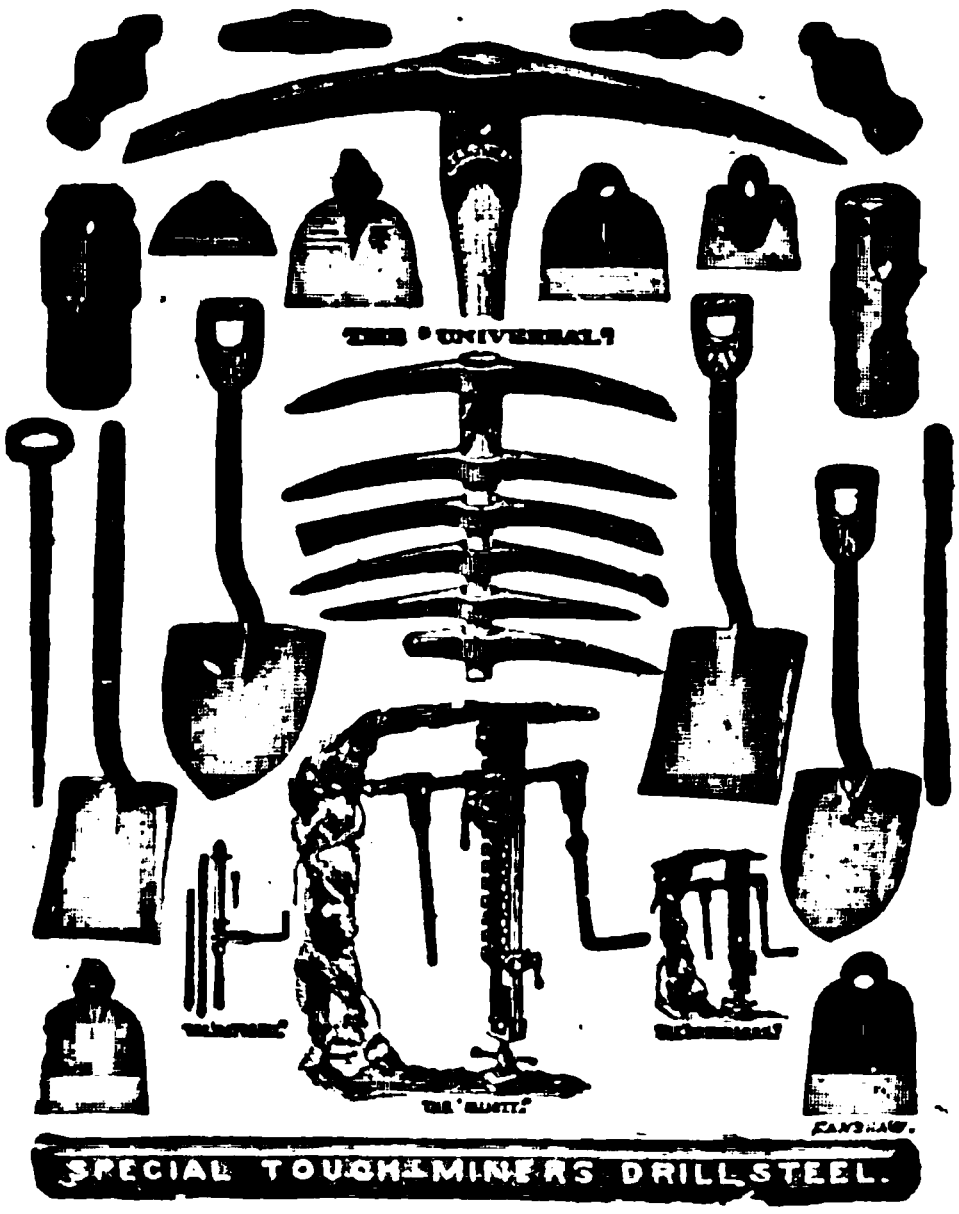

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THE Association for the Promotion of Technical (including Commercial and Agricultural) Education aims at encouraging those educational reforms which will improve the capacity, in a broad sense, of all those upon whom our industries depend. Its object is not to interfere with the teaching of trades in workshops, or with the industrial and commercial training in the manufactory and in the warehouse. It desires (1) to develop increased general dexterity of hand and eye among the young, which may be especially useful to those who have to earn their own livelihood, and at the same time improve rather than hinder their general education; (2) to bring about more widespread and thorough knowledge of those principles of science and art which underlie much of the industrial work of the nation; (3) to encourage better secondary instruction generally, which will include more effective teaching of foreign languages and science for those who have to guide our commercial relations abroad, and to develop our industries at home. With these and similar objects in view, the Association desires to bring about an improved organisation of the Industrial Education of both sexes in accordance with the needs of various districts. One of its main purposes is to stimulate public opinion by encouraging consultation and discussion between the representatives of various localities on the subject generally, and on any legislation that may be proposed, by conferences and meetings in various towns and villages; and by the diffusion of information in a cheap and popular form. The Association wishes where it can do so, to make better known the work of existing institutions, and to act in harmony with all those who are interested in bringing about more effective progress in a matter of the utmost importance to the country.

The Association does not pledge itself in detail to all the opinions expressed or quoted in its publications, but aims at providing by their means information worthy of careful consideration.

(A MODERN SCHOOL IN NEW YORK.) (See page 229.)

I.—EDITORIAL NOTES.

In the previous issue of "The Record" we dealt with the state of affairs then existing in regard to the draft scheme for the constitution of an Education Committee under the Education (London) Act, 1903, which had been submitted to the Board of Education by the London County Council. We are now enabled to record the approval of the draft scheme by the Board of Education and to observe the terms of the communication by which the approval was conveyed. It is somewhat remarkable how closely these terms coincide with the views to which we gave expression when last we wrote upon this matter. The document of sanction (quoted below) takes the form of a letter addressed by Mr. Robert L. Morant, Permanent Secretary to the Board of Education, to Mr. G. L. Gomme, Clerk to the London County Council, and is dated 14th March :—

> I am directed by the Board of Education to communicate their approval of the draft scheme for an Education Committee submitted by your Council on January 27th last.
>
> In expressing their approval, the Board must not be understood to accede without regret to the desire of your Council to limit the Committee so closely to members of their own body.
>
> But the Board recognise that the conditions of London are essentially different from those of other Local Authorities; while the task which the London Education Act has imposed upon the London County Council involves duties so grave in their importance and so varied in their character that the Board are unwilling to press for modifications in a scheme framed by your Council with these considerations in view and constituting such a Committee as they think will best assist them in the fulfilment of those duties.
>
> In view, therefore, of these considerations, I am directed to enclose herewith a copy of the scheme formally approved and sealed by the Board.

We venture to congratulate the Board of Education upon their prompt recognition of the special circumstances of the case and

upon the tone of their communication to the new Local Education Authority for London.

* * * * * *

The Special Committee of Selection, to whom the approved draft scheme was referred, subsequently submitted a report to the Council, from which we extract the following :—

'It is necessary for the Council to frame a reference to the 'Education Committee, but we are of opinion that such reference 'should, for the present, be limited. We only ask the Council to 'accept the reference we now propose as a provisional arrangement 'to enable the Education Committee to commence its work. 'There are various important administrative points which it will 'be necessary for the Council to consider very carefully, but on 'which we think the Council would wish to have reports from the 'Education Committee before finally settling a form of reference. 'We think that the Council should be free to reconsider the whole 'matter at an early date, when some experience of the work has 'been gained. We, therefore, propose, without prejudice to such 'future reconsideration, that the Education Committee should be 'placed, as nearly as possible, in the position of the ordinary 'Committees of the Council (other than the Asylums Committee); 'and that the Standing Orders of the Council should apply to the 'Committee, except where otherwise expressly provided.

* * * * * *

'We have thought it desirable, in order to secure unification of 'work, to include in the work of the Education Committee the 'administration of the Council's schools hitherto dealt with by 'the Industrial and Reformatory Schools Committee, and the 'exercise of the Council's powers under the Industrial and 'Reformatory Schools Acts. We also propose, with a similar 'object, that the Education Committee should report to the 'Council on all educational charities.

'We recommend :—

'(*a*) That the following be the order of reference to the Education 'Committee :—

'(1) The Committee shall be constituted in accordance with the 'following scheme :—'

[*Here follows the scheme as printed on pp. 83-4 of the January/March number of "The Record."*]

'2. The Committee shall consider and report on all matters 'relating to the exercise by the Council of its powers under the 'Education Acts and the Industrial and Reformatory Schools Acts, 'except the powers of raising a rate or borrowing money.

'3. The Committee shall have the maintenance and management 'of all land, buildings owned or provided by the Council, equipment, 'stores, furniture or apparatus belonging to or held by the Council 'in connection with its educational work. All works or contracts 'authorised by the Council in connection with its educational 'work shall be carried out under the direction of the Committee.

'4. The Committee shall, notwithstanding any provision to the 'contrary contained in any Standing Order, be empowered to order 'all stores, books,. stationery and school furniture required for 'current use in connection with the educational work of the 'Council, and all current repairs to the Council's school buildings.

'5. The Committee shall have the control of all officers and 'servants in the education department. The scales of pay and 'qualifications, the number of persons employed, their respective 'rates of pay, and every appointment, promotion, discharge or 'dismissal shall be subject to the approval of the Council. All 'changes in or relating to the teaching staff, in provided or non-'provided schools, including pupil-teachers, school-keepers and 'visitors, shall be reported to the Council at least once a quarter.

* * * * * *

'6. The Committee shall be responsible for enforcing the law 'relating to school attendance and shall from time to time prepare 'and submit to the Council for approval such bye-laws and 'regulations with respect thereto as may seem expedient.

'7. The Committee shall have power to take any necessary legal 'proceedings under the Education Acts and the Industrial and 'Reformatory Schools Acts, but shall not prosecute an appeal to, 'or institute any proceedings in, the High Court without the 'sanction of the Council.

'8. The Committee shall consider and report to the Council 'on all questions relating to educational charities, endowments 'and foundations in London. When under any Act of Parliament, 'scheme or other instrument the Council is empowered to appoint 'representatives on the Governing Body, or managers, or members 'of a Joint Committee of any educational institution, or of any 'charitable Trust or Foundation having educational purposes, the 'Committee shall recommend such representatives, members or 'managers to the Council.

'9. The Committee shall exercise the powers of the Council 'under the Middlesex Industrial Schools Acts and the Industrial 'and Reformatory Schools Acts, and shall be the Committee of 'Visitors under the Middlesex Industrial Schools Act.

'10. The Standing Orders of the Council shall, so far as 'applicable, and except as otherwise or herein provided, apply 'to the Education Committee.'

* * * * * *

The Special Committee of Selection further recommended—

(*b*) That the Education Committee be constituted as follows:—

. . . . . .

Members of the Council (38).—The Chairman of the Council (J. W. Benn), the Vice-Chairman of the Council (E. A. Cornwall), the Deputy-Chairman of the Council (F. P. Alliston), A. A. Allen, E. Barnes, E. Bayley, R. Bray, W. C. Bridgeman, E. Collins, Sir W. J. Collins, G. Dew, W. H. Dickinson, Dr. E. B. Forman, T. Gautrey, Hon. R. Guinness, T. E. Harvey, Rev. A. W. Jephson, W. J. Lancaster, A. L. Leon, Sir F. Mowatt, W. E. Mullins, John Piggott, W. Pope, G. H. Radford, Arthur B. Russell, W. S. Sanders, A. J. Shepheard, Evan Spicer, James Stuart, C. Y. Sturge, J. T. Taylor, Hon. F. Thesiger, A. A. Thomas, W. W. Thompson, G. Wallas, Sidney Webb, W. Wightman, T. McKinnon Wood.

Members Selected under Clause 1 of the Scheme (5).—Dr. Sophie Bryant, Miss Margaret Eve, Mrs. Homan, Hon. Maude Lawrence, Miss Susan Lawrence.

Members of the London School Board (5).—G. L. Bruce,* Sir Charles Elliott, Rev. J. Scott Lidgett, H. W. Liversidge, J. G. Ritchie.

* * * * * *

The Education Committee came into existence on the 22nd March, 1904, and, as their first business, proceeded to appoint Sir William Collins as their Chairman and Mr. A. J. Shepheard as their Vice-Chairman. Several meetings of the Committee have taken place already, for it is obvious that the work which has to be done is of a colossal character. The Committee propose to carry on their operations mainly through the medium of sub-committees,

* The Lord Stanley of Alderley was recommended for a position among this group, but His Lordship declined the honour: Mr. Bruce was then voted to the vacancy.

but meanwhile there is the transition period to overcome. Many details, relating to finance and staff and to the continuation of existing conditions until the new *régime* can be established, have been dealt with; and, if we may judge by the reports submitted to the Council by the Committees among whom the work has been divided, a great deal of energy has been spent in this behalf. In the matter of finance, we note that the Finance Committee of the Council estimate (the Education Committee not having been created in time to make their own estimate) that, for the eleven months commencing on May 1st, 1904, and ending on 31st March, 1905, a sum of £3,392,286 will be required for educational purposes, including £544,900 for higher education. The estimate has been prepared in consultation with the accountant of the School Board and is on the usual lines of the School Board's estimate, as neither the Finance Committee nor the Education Committee have had the time or the experience for an independent examination of the education budget. Under arrangements made by the School Board, precepts already issued will provide funds up to the end of September. The Council will not, therefore, have to strike a rate until the second half of the year. The Finance Committtee, as at present advised, calculate the amount to be then raised at £1,390,666, of which £115,902 will be required for higher education. This will necessitate a rate for the half-year of 8⅛d. in the £, while the rate now in force is rather more than 7⅞d. in the £. It appears, too, that, as regards higher education, there will be a balance of about £8,000 to carry forward to the year 1904-5, and that arrangements are in progress for the provision of a substantial working balance for the administration of all forms of education.

* * * * * *

The arrangements as to staffing are far from complete, but it has been resolved to entrust the new work to three principal officials—the first of these to perform the duties of educational adviser, the second to be an executive officer and the third to have control of office work. For the post of educational adviser, the Committee promptly secured the services of Dr. Garnett, who for so many years has devoted his conspicuous abilities to the Council and to London as Secretary to the Technical Education Board. The positions of executive officer and of chief clerk have been advertised. We may expect to know in a few days the names of the individuals appointed. Special steps have also been taken to retain temporarily the services of Mr. Isitt, the clerk

to the late School Board for London; but, as already intimated, the organisation of an adequate educational staff for London will take some time. It would be impossible to review here all the important matters which have been dealt with already by the London County Council. But we hope to keep our readers in close touch with educational progress in the Metropolis—for progress is assured if the Act is worked in that liberal spirit of which there are many gratifying signs.

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We invite special attention to the expository and suggestive article on the Education (Scotland) Bill to be found on pp. 158-78 of our present issue. The writer of the article, Mr. John Clarke, is a well-known and trustworthy educational expert north of the Tweed, and anything upon Scottish educational affairs proceeding from his pen should receive the thoughtful examination of a wide constituency. The Bill has already passed the Second Reading stage in the House of Commons without a division, and this fact may well be regarded as evidence that the authors of the measure have struck a note which promises to bring about a settlement in harmony with Scottish opinion. It is recognised on all hands that the problem is urgent, and we trust, very heartily, that the article will help to remove such difficulties and misconceptions as may stand in the way of a complete adjustment. If, however, the present opportunity of the Legislature to deal effectively with the organisation of Scottish education should be lost, a heavy responsibility will rest upon those who did not do their utmost to avert so calamitous a result.

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The Home-Counties Nature-Study Exhibition, of which a detailed account is included in the article by Mr. Wilfred Mark Webb, published on pp. 179-223, marks a decided step in the progress of the nature-study movement. We have now seen the experience gained at the Nature-Study Exhibition of 1902 put into practice. It has been found possible to organise a successful Exhibition on restricted lines, and we know, therefore, that the teachers appreciate the effort to make nature-study a reality instead of a mere empty expression for anyone to interpret along the path of least resistance. It is only those who are intimately connected with pioneer work in education who recognise the prodigious amount of energy that has to be expended upon it. We,

therefore, think it only right to point out that Mr. Webb, after ungrudgingly devoting himself and his pen to promoting true nature-study for four years or more, initiated and carried out the Home-Counties Exhibition. He was able to elicit the sympathy of the Selborne Society and many individual Nature lovers, as well as that of His Majesty's Commissioners of Works, who, in conjunction with the Civil Service Commissioners, placed the Offices of the latter at the disposal of Mr. Webb's Committee. It is not possible yet to judge exactly the far-reaching effects of the book* which Mr. Webb, in collaboration with Mr. Matthew Davenport Hill, has written to introduce observational work into Eton College. Such a book should exercise considerable influence in the various schools throughout the Kingdom; and the paper, which, through Mr. Webb's efforts, may soon make its appearance, should go far towards spreading and consolidating the opinions which have now been definitely settled.

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The reports of Mr. Alfred Mosely's Educational Commission to the United States of America were issued to the public on the 9th April. They have appeared at a most opportune time, when the new Local Education Authorities are engaged in the task of establishing a complete educational organisation. It appears to us that the intrinsic value of these reports lies in their collective rather than in their individual aims, facts and conclusions. We have, therefore, prepared on pp. 224-53 a special article embodying in separate sections the main educational questions investigated and discussed by the majority of the Commissioners. We venture to think that, in this way, the whole subject of American education and the different directions in which American methods may be found to bear upon English conditions are brought within a reasonable focus. It remains chiefly for our Local Authorities themselves to discriminate in what directions to experiment or initiate, in their own areas, upon the lines suggested by the Commissioners—a number of whom make specific recommendations.

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While there is really nothing essentially novel, it is well to be reminded of certain reforms concerning our educational

* "Eton Nature-Study and Observational Lessons," Parts I. and II. (London: Duckworth and Co., 1903 and 1904, price 3s. 6d. each, nett).

arrangements, the importance of which has been advocated many times through Government inquiries and by educational experts. Among them we would here place the following:—

(1) To raise the age for compulsory attendance at school to 15 or 16 years;

(2) To totally abolish, or, at least, to considerably modify, the present examination system;

(3) To organise free secondary education on a broad and liberal basis as part of the public school system;

(4) To facilitate the passage from elementary to higher schools by instituting a correlated curriculum and a liberal system of scholarships awarded not by competition but by careful inquiry into the needs, character and ability of candidates;

(5) To establish well-equipped manual training schools or departments in both primary and secondary schools, and to organise manual training courses for teachers in connection with existing training colleges;

(6) To provide, by Imperial funds, institutions of university rank giving advanced technical education (practical and theoretical), and for carrying on the highest grade of research work in science as applied to industry;

(7) To establish a close connection between technical institutions and commercial and industrial organisations, and better relationships between technical schools and classes and manufacturers;

(8) To constitute effective central organisation for the development of agricultural education, and, in particular, to give adequate means to agricultural colleges to conduct efficiently experimental work of all kinds.

* * * * * *

The result of the debate in Parliament on the 15th March upon the motion of the Rt. Hon. Henry Hobhouse in regard to the financial side of the question of the training of teachers should tend to relieve somewhat the anxieties of Local Education Authorities. A promise was extracted that the grants of the Board of Education on account of pupil-teachers attending preparatory classes and recognised centres respectively would be doubled, these grants becoming payable from the 1st August next, and that "some assistance would be given in the matter of building grants." This shows that the Government desire, on the one hand, to recognise the difficulties and the manifest claims of Local Authorities, and, on the other hand, to fulfil their national

obligations towards such an important work. But, further, all doubt must be dispersed as to whether the opinion of the House of Commons, that the greater part of the cost of the training of teachers should fall upon the Imperial Exchequer, will be effectively and speedily carried out; the declaration of the Association of Directors and Secretaries for Education upon the point, as recorded on pp. 261-2, is, therefore, peculiarly fitting and forceful. The valuable report, which we are able to include in Section V. (pp. 254-60), of the joint action taken in the Eastern Counties, is sufficient evidence of the readiness of a group of our premier Local Education Authorities to deal with this great question in a truly liberal spirit. We hope that the Government will promptly respond to the call for such adequate assistance as is needed.

In the matter of the provision of training colleges, the following resolutions, adopted by the Executive Council of the County Councils Association on the 17th May, deserve special notice:—

That, assuming that Government grants on the present scale can be obtained, it is desirable that there should be a certain number of training colleges (both day and residential) at which (*a*) one-year courses of a professional character should be given to students who have passed a standard of general learning not lower than the London Matriculation Examination, and at which (*b*) shorter courses should be given to untrained teachers certified by the Local Education Authority and His Majesty's Inspector to be capable of benefiting by such courses;

That in all training colleges it is desirable that special attention should be directed to those methods of education which are based upon the study of natural objects.

* * * * *

At a time when the training of all classes of teachers is one of the foremost questions of educational policy, it is not inopportune to be reminded of the state of things in this connection north of the Tweed. The Scotch Education Department tell us that the great majority of the students in the training colleges are recruited from amongst pupil-teachers—hence, the vital importance of sparing nothing to ensure the full equipment of those teachers, in view of the determining influence upon the future teachers who ultimately leave the colleges. It is noteworthy too that, while we are advocating here the higher and wider culture of our teachers in elementary schools, exactly one-third of the King's scholars at Scotch training colleges is in attendance at university classes,

the fees for which are allowed as part of the legitimate expenditure of the colleges. The need for teachers of the highest attainments is demonstrated by the growth of the higher grade departments of Scottish schools, which were established under the Code of 1899. Such higher departments have increased from 36 in operation during 1902-3 to 70 at the present time, and will now be able to give more general and less of specialised education than heretofore. As regards the entire existing supply of teachers in Scotland, it is found that over 81 per cent. of the males and nearly 62 per cent. of the females pass through the training colleges.

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The Scotch Education Department have also something to say in regard to the very unequal distribution of the Residue Grant, and to the manner of the application of the Grant to technical education. It appears that some Local Authorities ignore their responsibilities altogether, and even those Authorities who do recognise them do not always allocate the Grant satisfactorily. The total sum distributed for 1902-3 was £69,000—a decrease of £18,000 in two years. A little larger percentage (73) of the whole is now allocated to educational purposes. But the position generally will never be really satisfactory until, as in England, the Grant is so applied by Statute, and the number of autonomous authorities is reduced and the larger areas of administration retained. These reforms will at last be effected, though not in the way anticipated, by the provisions of the Scotch Education Bill now before Parliament (see pp. 158-78). With reference to the grants distributed for agricultural education (£4,255), the bulk (87 per cent.) goes to support the work of the central colleges in the East and West, at Edinburgh and Glasgow. The establishment of an agricultural college at Aberdeen, with a constitution similar to the other institutions, will do much to complete the machinery for the organisation of agricultural education for the whole of Scotland.

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Some interesting particulars have just come to hand showing how the demand for technical education has been fostered in the remote or rural districts of Durham during the past few years. In 1899, the County Council, in view of excessive expenditure, largely revised their policy of promoting technical education. Instead of conveying a mere smattering of elementary knowledge to great

numbers, it was resolved to assist a more limited number of real students to take systematic courses by offering scholarships, etc., to colleges and technical institutes. The effect of this was, of course, to instantly lower the average attendance at lectures, which at one time reached between 3,000 and 4,000, to a few hundreds, and the rural districts naturally felt the burden of the change most. But, with the object of attracting would-be students from those districts to central classes in advanced scientific and technological subjects, a method of transfers was adopted whereby train and road conveyance fares are paid by the County Committee. Where there are satisfactory assurances that the students will benefit by attendance, books of warrants are issued authorising the railway booking clerk to supply a return ticket in exchange for, or a 'bus proprietor to drive the students named on, the warrants, which are forwarded at the end of each month for payment to the County Education Office. The rapid increase in the numbers of students availing themselves of these advantages is sufficient to indicate the success of the method. The number of transfers issued in 1900-1 was 299, in the following year 417 and in 1902-3 it rose to 569. These students thus obtain the best kind of technical training in central institutions instead of a necessarily limited teaching in small local classes.

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The Board of Education have just issued, for the information of students and Education Authorities, a revised list of 25 holiday courses for instruction in modern languages which will be held on the Continent at different times during the present year, but mostly in the summer months. Five of the courses will be held in Germany, viz., at Greifswald, Jena, Königsberg, Marburg and Neuwied; three in Switzerland, viz., at Geneva, Lausanne and Neuchatel; one in Spain, viz., at Santander; one in Austria, viz., at Salzburg; and the remainder in France, viz., at Tours, Honfleur, Paris, Grenoble, Nancy, St. Servan St. Malo, Villerville-sur-Mer, Boulogne, Caen, Bayeux, Lisieux and Dijon. The list gives the date of each course, the fees, return fares from London, lowest cost of boarding, principal subjects of instruction, address of local secretary and other details of importance to intending students. Copies can be obtained free on application to the Board of Education Library, St. Stephen's House, Canon Row, Whitehall, London, S.W.

On the 18th April, the Parliamentary Secretary to the Board of Education made an interesting statement in the House of Commons showing how the Education Act has been gradually brought into operation throughout the country. The following is a condensed summary of Sir Wm. Anson's figures, giving the number of different Local Education Authorities in England and Wales who have brought the Act into operation during each month from April, 1903:—

1903.	Counties.	County Boroughs.	Boroughs.	Urban Districts.	Total.
April	8	13	15	3	39
May	5	10	31	8	54
June	5	8	19	11	43
July	13	14	27	8	62
August	—	—	8	3	11
September	23	15	18	15	71
October	—	1	6	5	12
November	—	1	4	—	5
December	—	1	2	1	4
1904.					
January	—	2	—	1	3
February	—	—	1	—	1
March	—	—	1	—	1
April	2	1	12	1	16
Totals	56	66	144	56	332

The "appointed day" has not yet been reached in six counties, three county boroughs and three urban districts; all but one of these are within the Welsh Principality.

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The Circular recently issued by the Local Government Board to Local Authorities with reference to loans raised in respect of schools other than elementary appears to affect seriously the principle of co-operation in matters pertaining to the organisation and control of education by Central and Local Authorities respectively. It is stated therein that the approval of the Board of Education is required to plans of endowed and other schools, including schools recognised under the Secondary Schools Regulations, and that the Local Education Authority is required to consult that Board under Section 2 (1) of the Education Act. All proposals relating to the supply of sites and buildings should, therefore, be first submitted to the Board of Education, whose approval should be obtained prior to the applications to the Local Government Board for permission to borrow money. Applications for loans should be accompanied by statements of the Authority's

estimated annual receipts and expenditure for education other than elementary, of the assessable value of the area, and of outstanding loans. The Circular also sets forth the details of the additional particulars required by the Local Government Board in the case of applications—(*a*) for the erection or adaptation of buildings, or (*b*) for the acquisition of a site by a Local Authority, or (*c*) for loans for contributions toward the cost of schools under independent Governing Bodies.

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The report of the Board of Education on the administration of the intermediate schools in Wales, just issued as Parliamentary Paper 119, returns the number of pupils on the rolls at 8,789, a figure, we would remark, which maintains the steady increase commencing from the year 1896-7. A noteworthy feature in the returns is the maintenance from year to year of the balance in the number of boys and girls respectively in attendance. The assistance received in the form of scholarships, bursaries and augmentations from various sources by the pupils aggregates £17,609—an advance of nearly £4,000 in one year. There is, however, a mixture of complaint and commendation in the Board's *report* concerning the organisation of and the teaching in the schools. An insufficiency in the number of teachers on the staff is apparent, attention being directed to this matter in no less than 24 cases. The number of small schools also demands a still further increase in the teaching staff. While the literary work is usually very satisfactory, the reports on physical, and even more on chemical, science are not reassuring, when it is considered that the majority of the schools are receiving special grants for instruction in science. Again, manual training does not appear to be as generally given as it should be, and the number of students examined in drawing shows a steady decline. It will doubtless be generally recognised that the following comment in the report indicates a wise policy :—" It is by no means desirable that schools " should be judged solely by their successes in written examinations, " but, in so far as they may be so judged, the conditions of " examination in each school should be the same."

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The report of the Inter-Departmental Committee on the Model Course of Physical Exercises will thrust further important duties upon Education Committees and incur novel developments in the

perspective, if not in the actual training, of all teachers. The valuable principles advocated therein are, of course, particularly adaptable for the different ages and sexes of the children in public elementary schools. Yet we see no reason why, now that institutions of every grade and type have been brought under the aegis of one Local Education Authority, the same principles should not be found to apply, with suitable modifications and extensions, to the older scholars attending day secondary and technical schools. Anyone who has exhaustively examined the Inter-Departmental Committee's report will not fail to recognise the vital importance, especially in its *educational* effect, of appropriate physical training in the schools during school hours. The whole question is very succinctly but fully dealt with. The purpose of such exercises in schools, as well as the constructive principles, are considered, the suggested syllabus comprising over 100 exercises. We cannot afford here a close examination of the report. But it may be said at once that the adoption of the conclusions will practically involve the obliteration of the model course of physical exercises now in use. Among the most important conclusions of the Committee are—to give greater prominence in the general training of teachers to suitable instruction (including clinical experience) in the laws of health and in outward signs of physical and mental weakness; the systematic reference of questions of school hygiene and the special treatment of individual scholars to medical experts; and the provision of separate and specially-qualified physical instructors (*a*) for groups of rural schools, and (*b*) to be entrusted generally with large duties of organisation and supervision.

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The system carried on in Ireland under the Board of National Education receives skilful treatment from Mr. F. H. Dale, H.M.I., in a report just presented to Parliament. Mr. Dale was appointed by the English Board of Education to undertake the difficult task (*a*) of comparing Irish elementary day schools with similarly-circumstanced schools in England as regards premises, equipment, staffing and instruction, and (*b*) of tracing the chief causes of difference in economy and efficiency. Two facts of general import disclosed by this report deserve special remark. The first is that many of the evils existing in connection with Irish primary education—*e.g.*, delay in the provision of school supply, excessive expenditure, multiplication of schools, lack of local interest in education, inadequate or over-staffing of schools and so on—are

due to the absence of a local rating authority. The second fact—one which might well be ever-present in the minds of English educationalists—is the failure of the avowed object of the Irish national school system to afford education and separate religious instruction to children of all persuasions in the same school.

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As the vast majority of Irish schools are rural schools, Mr. Dale strongly emphasises the need for promoting instruction bearing upon the children's daily life and surroundings. The opportunity is already afforded by the Revised Programme of the National Board, which recommends that a small garden plot should be attached to every school. The very necessary training in rural subjects required by the teachers, which the English County Councils have so successfully provided, could be undertaken with the co-operation of the Board of Agriculture and Technical Instruction. As to the larger question of the improvement of the entire system of primary education, he also lays strong emphasis upon the need for the closest co-operation between the three Central Irish Boards of Education. Attention can only be drawn here to the gist of a selected few of the 90 conclusions and recommendations forming the general summary of the report :—(1) That the number of schools has increased while the population has diminished, (2) that the control and organisation of schools has been divorced from financial responsibility for them, (3) that attendance is not everywhere compulsory, (4) that the supply of qualified teachers greatly exceeds the demand. A separate excursus is devoted to the model schools, which in many respects are not the institutions their name implies, such as in regard to the excessive cost of maintenance, the very large proportion of accommodation unused, and the buildings being unsuitable for modern requirements. Thus, considered as a whole, the position exposed by this report certainly calls for the early intervention of the Legislature, if the primary education of Ireland is to be placed upon a satisfactory footing. But there is no prospect of this, in view of the Government's recent announcement in Parliament "that it might be possible to introduce legislation upon the subject next year."

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A general meeting of the Association of Directors and Secretaries for Education was held at The University, Birmingham, on Friday, the 15th April, 1904. The Chairman, Mr. P. Elford (Oxfordshire),

presided, and 27 members were present. The rules and regulations of the Association were referred to a Committee for report.—The following new members were elected: — Messrs. R. T. Jones (Birkenhead), W. A. Adams (Bristol), W. N. Graham (Burton-on-Trent), E. R. Davies (Carnarvonshire), J. B. Evans (Flintshire), A. Hallidie (Hertfordshire) and W. Packer (Leeds).—As regards procedure under the late Clause VII. respecting secondary schools, it was decided that, as there does not appear to be any general agreement among the various Authorities, each Committee should be left to make their own representations to the Board of Education thereon: full particulars of the action hitherto taken by the Association in connection with this matter were given in our last issue, and on pp. 260-2 of the present one will be found the Association's suggestions for the amendment of the Regulations for the Training of Pupil Teachers.— It was agreed to arrange a conference, on the general question of administration, between members of the Association and the Board of Education.—Visits were paid to the University Buildings at Bournbrook and to the Model Village of Bournville (Cadbury's).—The next meeting of the Association will be held at Oxford University on the 8th July.

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The following additions to and revisions of the list of the chief educational officials appointed in counties and county boroughs, under the Education Act, 1902, published in our last issue (pp. 8-9 and 86-99), should be noted :—

BEDFORDSHIRE .....*Assistant Director*: Mr. W. W. Finney, M.A., Shire Hall, Bedford.

BLACKBURN .....*Secretary*: Mr. Nicholas Taylor, Education Offices.

DURHAM .....*Educational Adviser*: Mr. Frank Newman, B.Sc., Education Offices, Shire Hall, Durham.

Secretary for Higher Education: Mr. J. A. L. Robson, ditto.

Secretary for Elementary Education: Mr. A. J. Dawson, ditto.

LONDON .....*Educational Adviser*: Dr. Wm. Garnett, M.A., 116, St. Martin's Lane, W.C.

Executive Officer: (To be appointed).

Chief Clerk: (To be appointed).

Principal Assistant Clerk: Mr. M. H. Cox, London County Council Education Offices, Victoria Embankment, W.C.

NEWCASTLE-ON-TYNE ....*Secretary*: Mr. A. Goddard, Education Offices, Northumberland Road.

NORWICH .....*Principal of Technical Institute and Organiser of Higher Education*: Mr. Hugh Ramage, B.A.

SALFORD .....*Principal of Royal Technical Institute*: Mr. H. B. Knowles, M.A.

YORK .....*Organising Superintendent*: Mr. William Ingham, M.A., Education Offices, Clifford Street.

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Extreme pressure upon our space still compels us to hold over the review of the report of the Special Sub-Committee on Technical Instruction for Women of the late Technical Education Board of the London County Council, which, among other matters, we intimated in our last issue would receive treatment in this number. For the same reason we are unable at present to deal with the new Code or to publish special articles upon the organisation of individual secondary schools in Worcestershire and Bedfordshire, as well as a selection of valuable scholarship schemes recently adopted by Education Committees to meet the enlarged requirements of the Education Act, 1902.

II.—THE EDUCATION (SCOTLAND) BILL.*

AN EXPOSITORY AND SUGGESTIVE REVIEW.

By John Clarke, Lecturer on Education, University of Aberdeen.

In dealing with the new Education Bill for Scotland it will be convenient to adopt a threefold division—a method which Scotch theology has made familiar to the nation—and the heads of discussion shall be these :—

A. The present condition of educational administration;

B. The main proposals of the Bill, as it at present stands;

C. Some suggestions for its amendment.

Were one speaking to an audience exclusively Scotch, the first might perhaps be assumed. But to English readers, with the exception of specialists in comparative educational systems, the Bill must be unintelligible without some preliminary explanation of the situation with which it deals. The briefest outline is all that is here possible.

A.—EXISTING EDUCATIONAL CONDITIONS.

Education in Scotland, outside the Universities, of which alone we speak, is provided for in a variety of ways. First come School Boards, Parochial and Burgh, close upon a thousand in number (972). Their primary duty is in regard to elementary education, and a certain amount of doubt has always attached to the question of their power of rating for secondary education. In practice, a good many of the larger Boards have managed, especially in recent years, to find funds for any higher work they have wished to take up or encourage, the extent of which, especially in burghs, has been considerable. There are enormous disparities between Board and Board. Some care for the education of a population of less than 100 souls, others for more than 100,000. Between these extremes there are all varieties, so much so, indeed, that though all are called by the same name

* A Bill to amend the laws relating to Education in Scotland, and for other purposes connected therewith, 28th March, 1904.

there is no analogy running through or applicable to all. Several systems of education and several methods of administration might be illustrated from that which to the outside observer appears a single homogeneous system. The method of election is by cumulative vote. School Boards have been in existence since 1872.

Elementary education is also provided in voluntary schools under school managers, but this is, in Scotland, a comparatively unimportant item: there are only about eight per cent. of the elementary schools strictly denominational,* six per cent. being Roman Catholic and two per cent. Episcopal: the average attendance at these schools is rather larger, being between ten and eleven per cent. of the whole.

Next in order to School Boards may be placed Burgh and County Committees on Secondary Education. The title denotes their purpose. They have been in existence for little more than a decade and their chief function is to distribute in their various districts, *i.e.*, 33 counties and six large burghs, a fund of some £55,000 per annum for the benefit of secondary education. They are constituted under Minutes of the Scotch Education Department, whose rules they have to observe in allocating their grants and whose annual sanction is necessary to all their schemes of distribution. They have all done something, many of them a good deal, to encourage and promote secondary education by making grants to schools, providing bursaries, giving travelling allowances to pupils attending central schools, and otherwise fostering and subsidising higher work; but their usefulness has been hampered by the exceedingly narrow limits within which they have had to work. They merely make grants and cannot establish schools. This detachment of financial from administrative control is one of the anomalies of the situation which demand rectification.

Burgh and County Councils have been introduced into the sphere of education by having received charge of the Residue Grant, the so-called "Beer Money," an alternative destination of which is education. In a few of the counties, an independent organisation, a Technical Instruction Committee, has been set up; in others, the Grant has been handed over for administration, as it is lawful to do, to the Secondary Education Committee. In both these cases a large amount of good work has been accomplished, and there are great possibilities of expansion and usefulness in this direction. In a great many cases, *e.g.*, most of the 204 burghs

* There are certain other schools not under School Boards and, therefore, to some extent voluntary: if they are included, the number becomes, in schools eleven per cent. of the whole, and in average attendance, nearly 13 per cent.

of Scotland, the amount of the Grant has been so small that no independent machinery could be established by its means. In such cases, it has either been made over to School Boards or educational institutions, or has been lost altogether to education by being devoted to relief of rates.*

Special mention must be made of Governors of endowed schools. These have been constituted under various instruments, Royal Commissions and the like, and administer large funds and have charge of some of the most important schools, chiefly secondary, in the country. No direct relation has been established between School Boards and endowed Governors, and there have not been wanting cases of jealousy and rivalry between them, though recently the tendency has been more in the direction of harmony and co-operation. The institutions providing secondary education are, in the first place, higher class schools under School Boards, often called Burgh Schools from their history and their situation; in the second place, endowed schools ; while, further, there are a number of schools of a proprietary or private adventure character, attended by children of a higher social grade, which also contribute to the resources available for the purpose. The following table shows the numbers :—

I.	Burgh	32
II.	Endowed	23
III.	Inspected, but not subsidised [by Government]	39
IV.	Other schools neither inspected nor subsidised..	6
	Total	100†

These may be regarded as the strictly secondary schools. But, paradoxical as it may seem, a great proportion, perhaps the greater proportion, of secondary education is imparted in elementary schools. That is to say, a very large number of schools ranking as elementary, in which the instruction is predominantly elementary, have a secondary department attached to them, part of the same organisation and taught by the same teachers. The secondary department is often very small; sometimes a teacher even takes one or two promising pupils for instruction out of school hours without having any advanced department in his school. This has been and is characteristic of the Scotch system, particularly in the rural parts of the country, and it is a feature which all reformers

* It should be noted that by nearly all the counties the Residue Grant has been devoted exclusively to education. This has by no means been the case in burghs, especially the smaller ones.

† See the writer's "Short Studies in Education in Scotland," p. 56.

that understand the situation have sought to conserve. Briefly, then, elementary education is provided by School Boards in what are usually known as public schools, *i.e.*, elementary public schools, and to a small extent by managers of voluntary schools. Secondary education is provided in higher class public, otherwise burgh, schools under School Boards, by endowed schools and by proprietary or private schools, and also to a large extent, particularly in rural districts and villages, but even in some measure in burghs, by the elementary public schools just mentioned, in an advanced department. If it be added that higher grade schools and departments have of late years been developed by School Boards in many of the centres of population, sufficient will, perhaps, have been said on the subject of local administration and types of school, as they at present exist, to render what follows intelligible.

Over the whole congeries, for system it is not, presides a tutelary genius in the form of the Scotch Education Department, or, in official language, the Committee of Council on Education in Scotland. The Department's powers are wide and ill-defined, and, partly through its zeal and partly through the weakness and supineness of the local bodies, it has encroached upon their sphere until the latter have come, in many instances, to regard themselves as existing merely in order to register and execute the decrees of the central authority. With, perhaps, some exception regarding encroachment of this kind, the Department has rendered services of a solid and lasting character, of which any office may well feel proud.

A word may be added on the position of the teacher. He has, at the moment, several just grounds of complaint. He feels his position under the smaller School Board insecure; he is constantly open to vexatious criticism; he has no sphere of promotion without changing his service. By a variety of causes, his thoughts are drawn away from the proper centre of interest. The small School Board has very limited resources; salaries, though rising, are still miserably small, and retiring allowances are not such as to hold out a prospect of an easy and contented leisure after faithful service has been rendered. Altogether the teacher is not as contented as he is entitled to be made and as the interests of education demand.

B.—THE PROPOSALS OF THE NEW BILL.

Such being the position of affairs, the objectives of the legislator come more clearly into view. Among them may be specified (*a*) to unify local administration and consolidate funds, (*b*) to

co-ordinate the different grades of education, including the school with the higher stages represented by university and technical college, (*c*) to adjust the limits of jurisdiction of the central and local authorities respectively, (*d*) to bring endowments and their Governors into line with other agencies, (*e*) to improve the position of the teacher, including his training, whether this is to be done directly by legislation or not. The difficulty, be it noted, of the situation does not arise directly from the condition of *elementary* education. It has been well cared for by School Boards; indeed, it has been their concern more exclusively than perhaps it should have been. While the existing School Board system has its faults and irremediable defects, it may lay claim to one great merit—it has done so well by elementary education that, were the lower stages of education alone concerned, one would hesitate to advocate any radical legislative change. But with higher instruction it is far different. The confusion of authorities and jurisdiction is perplexing and intolerable. Energy is dissipated, co-ordination of agency with agency, grade with grade, authority with authority is rendered impossible. The necessary relations of elementary and secondary education have been in part responsible for the difficulties of adjustment: it probably, in any case, passes the wit of man to draw a strict line of demarcation between them; in Scotland the union of the two is rendered more complete by the peculiar circumstances of the country, already alluded to, which necessitate the combination of the two grades of instruction in so many cases in the same school.

These latter considerations may be assumed to have given the inspiration and the idea of legislation. The "vital principle" of the Bill, as stated by its author, is the control of all grades of education outside the university by a single body, and this may be our starting point in considering what the Bill actually provides.

The Bill, in addition to two short Preliminary Clauses, consists of six parts, as follow:—

Part I. Constitution and Election of School Board, Clauses 3-11.
Part II. Powers of School Board, Clauses 12-37.
Part III. Education (Scotland) Fund, Clauses 38-42.
Part IV. Provincial Councils for Education, Clauses 43-45.
Part V. Supplemental and Miscellaneous, Clauses 46-56.
Part VI. Transitory Provisions, Clauses 57-60.
Follows Schedule of enactments repealed.

It would manifestly be impossible to follow out the detailed provisions of the Bill, nor is this at all necessary. There are large portions, *e.g.*, Part VI. and much of Part V., with which we are not concerned, while Part III., although in one sense the most

important in the Bill, is of such a detailed and complicated character that only the most general account can here be rendered of it; fortunately it is only quasi-educational in character, and its provisions, therefore, touch us less closely.

The main idea of the Bill is *the unification of authorities*, in which is involved the consolidation of funds. Other leading ideas are the determination of the respective spheres of the Central and of the Local Authorities, the grading of the educational institutions, the introduction of the university, if not into the administrative at least into the advisory sphere, the improvement of the status and prospects of the teacher.

Constitution and Election of School Boards.—The School Board is not to be abolished in name—it is to be reconstituted. Its area and its powers are to be greatly enlarged. Its area is to be a sub-division of a county, known as a district (of which more anon), consisting of several parishes, and including for educational purposes all the burghs situated in it. Separate provision is made for the four large cities—Aberdeen, Dundee, Edinburgh including Leith, Glasgow including the four large suburbs of Govan, Kinning Park, Partick, Pollokshaws. They are to retain their Burgh School Boards. The cumulative vote is to be abolished; in the large burghs the members of the School Board are to be elected by city wards, elsewhere by county electoral divisions, as existing for County Council elections. The election for the School Board is to be on the same days as for Town and County Councils respectively. School Boards are to hold office for three years and to demit it simultaneously. The number and apportionment of members are to be dealt with by Orders issued by the Scotch Education Department. The Board is, of course, specially elected for purposes of education, that is, it is to be an *ad hoc* body.

The Powers of School Boards.—The powers of School Boards are extended so as to embrace both elementary and secondary, including technical, education—"higher" is the term used in the Bill. The school rate is to be equalised, *i.e.*, with a saving clause regarding debt already incurred for school buildings, the rate is to be the same all over the district. It is to be levied by the Parish Council,* which is to collect it, along with the poor rate, and hand it over to the School Board without deduction for levying or collecting. No distinction is to be made between the rates for higher and for elementary education: there is to be a common purse.

* Parish Councils have meantime no educational duties. A recent Government Return shows that, to the extent of 40 per cent., the *personnel* of the School Board and Parish Council throughout Scotland is identical.

Burgh (by which is to be understood one of the four large burghs enumerated) School Boards *may*, District School Boards *must*, delegate the management of the schools, singly or in parish or included burghal groups, to bodies of managers elected as to one-third of their number by the School Board, and as to the other two-thirds by the Parish or Town Council of the area. The compulsory clause may be worked either by these managers or by a separate committee of the Board. Certain duties are incapable of being delegated—the "power of borrowing or raising money, of "incurring capital expenditure, or of dismissing teachers." Among the objects for which School Boards are empowered to make grants are:—

(*a*) "Physical training and recreation of the pupils attending "schools within their education district, and for their medical "examination and supervision";

(*b*) Salaries of teachers and officials connected with technical instruction;

(*c*) "Pecuniary aid, upon such conditions as they may from time "to time prescribe to schools and institutions not under their "charge, where such schools or institutions are recognised by the "Department as supplying efficient education" (this is the method of dealing with aid from the rates to the voluntary schools).

(*d*) Bursaries at school or university;

(*e*) Travelling allowances and the provision of travelling facilities, "vehicles," for teachers or children;

(*f*) Pensions or retiring allowances to certain teachers.

The consent of the Department is necessary to any expenditure incurred under (*c*), (*d*) or (*e*).

Other Clauses under this part of the Bill deal with differential scales of fees, the education of blind and deaf mute children, compulsory acquisition of land, etc.

The Education (Scotland) Fund.—It is difficult to explain the character of the financial Clauses without going too far afield and entering into the details of the numerous grants that have been provisionally put aside by Parliament and that are meantime administered for, *inter alia*, educational purposes. It may be sufficient to say that a "pool" is to be formed of all grants in aid and grants at present in the hands of Local Authorities for purposes of higher education, and likewise an "equivalent" grant not so applied at present; on this fund, estimated at about half-a-million annually, the Scotch Education Department alone is to operate. The order of the objects to which grants are to be made is:—

(1) inspection and examination of higher schools, also sanitary or medical examination;

(2) capital expenditure for advanced technical instruction to an amount of not more than £40,000 per annum;

(3) "special grants," under Minutes of the Department, for (*a*) "central institutions," (*b*) "provision of efficient higher education," (*c*) bursaries, (*d*) staffing, (*e*) (*f*) necessitous schools;

(4) distribution of the whole of the remainder to Parliamentary grant schools in proportion to the average attendance of scholars.

Other provisions empower the Department to determine what schools shall be admitted to a share in the Parliamentary grant, and to reduce or withhold grants to Boards which do not make satisfactory provision for higher education. In these two duties it is to have the advice of the Provincial Councils.

Provincial Councils for Education.—These Councils are to be four in number, sitting in Edinburgh, Glasgow, Aberdeen and Inverness respectively. They are to be constituted by Orders in Council, and are to consist of representatives of Local Authorities, including County Councils and School Boards, of universities, of central institutions, voluntary and endowed schools, and to have also as members two teachers in active service. The Councils are to advise the Department on the points just referred to, viz., the adequacy of the higher education in the province and the admission of schools to the benefits of the Education Fund, and, likewise, as to the qualifications of teachers to be employed in these schools and the curriculum of any such school or group of schools. They can also "make a representation" on any other subject affecting the educational welfare of the province.

Supplemental and Miscellaneous.—The most important of the supplemental provisions are undoubtedly those dealing with endowments. Governors of endowments and endowed schools are empowered to hand over their funds or institutions to the School Board, if a two-thirds majority favour that course. Provision is also made for alteration in the conditions and educational tests applicable to bursaries, with a saving clause against alienation from their essential purpose. Under Parts III. and V. it is provided that a survey be made of the existing provision for higher education, including technical education, and that a joint committee of the district School Boards of a county shall carry on the "technical education" at present in operation for at least *one year* from the passing of the Act, after which they may either continue it or adopt any other course that seems advisable to them.

Piecing together the proposals, we find, beginning at the base, the following as the system outlined:—

(*a*) Local parish or burgh managers of schools with charge of certain duties, say, care of school buildings, supply of materials,

inspection of registers, supervision of compulsory officer, making of Government Returns, possibly appointment of teachers, or so many of these and other duties of management as may be delegated to them.

(*b*) The School Board with duties of raising money, incurring capital expenditure, dismissal of teachers, together with so many of the other duties as it may choose not to delegate: higher instruction to such extent as it can undertake it single-handed, but for this purpose it is contemplated that it will work through a

(*c*) Joint (County) Committee. This body will have charge of (all the higher, including) technical education.

(*d*) The Provincial Council will give the university some say in the matter of higher education, and the Council will keep School Boards up to the mark in this respect and will "advise" the Department.

(*e*) The Department has complete financial control so far as relates to Imperial funds. It determines what schools are to share in them, and what grade various institutions are to belong to; it has a veto upon the more important acts of School Boards; it can use compulsion if they fail in their duties—and all this in addition to the extensive powers in regard to annual grants and curricula which it at present possesses.

The teacher gains somewhat by the extension of the School Board area, by better treatment under the Superannuation Act and by being allowed a voice in the Provincial Councils.

C.—SOME SUGGESTED AMENDMENTS.

The limits of space prevent anything like a full discussion of the details of the Bill. All that I can hope to do is to fix attention on a few of the outstanding principles, especially those that appear of vital importance. With the main object and intention of the Bill there is complete and cordial agreement. A comparison of its terms with those of the abortive Bill of 1900 shows how much progress has been made in the interval. The present Secretary for Scotland, Mr. Graham Murray, and his predecessor, Lord Balfour of Burleigh, who are primarily responsible for the measure, have deserved well of Scotland in having advanced matters to the present position. The only doubt that remains is whether the proposals of the Bill are the best means of securing the professed object, with which all are in full sympathy. There is agreement as to the end—unification and consolidation, but there is much diversity of view as to the best means of attaining it.

The lines* of opinion in Scotland are setting in certain fairly definite directions, and the results of discussion in public bodies; each one of which naturally looks at the Bill from its own standpoint, enable one to judge what are the points on which further consideration must be bestowed. The prevailing sentiment is anxiety to amend the Bill; few, if any, wish to destroy it. No doubt the second reading stage will serve to focus attention on the weak parts and to pave the way for improvement. [See P.S. on p. 178.]

The Area.—The most important point is, in my opinion, the area of the new School Board: not that area has, in itself, much to do with education, but that it goes far to determine the character of the administering body—its powers, its relation to managers below and the Department above, the possibilities of grading and co-ordination and a host of other pertinent practical questions. The Bill chooses the district area, a term probably conveying a rather vague idea to most persons outside Scotland, and certainly little understood by many persons within it. Be it explained, then, that most of the counties of Scotland were thought too large for the detailed management of all the departments of work entrusted to County Councils, and by the Local Government (Scotland) Act, 1889, County Councils were, with certain exceptions, enjoined to divide their counties into districts. It was for the purpose of managing public health and roads that they were thus sub-divided; the district had already been in operation in certain counties for road management prior to 1889. The exceptions, to wit the undivided counties, are eight in all, and among them, curiously enough, the large county of Sutherland. In the divided counties, the number of districts is a varying one; some have two, others three and so on up to eight. The total number of districts for the 25 divided counties is 99, which, with the eight undivided, gives 107 districts as compared with 33 counties. The four "enumerated" burghs are in addition to either number. The districts vary greatly in area, population, local convenience, occupation of inhabitants, etc., etc. It is difficult to characterise them justly by any single description. For example, the middle ward of Lanark contains some 180,000 inhabitants, exclusive of burghs, which bring up the figure to fully 320,000, while the Cumbrae district of Bute has little more than 100 inhabitants, or, including its burgh of Millport, under 1,800. These are extreme cases, but looking at the question in the very

* The issues have been at times a little obscured by the too exclusive adoption of one of two distinct standpoints—that of education and that of local government. I have endeavoured in what follows to keep both in view, though regarding the former as, in case of conflict, the more important.

broadest form, we find that the average number of inhabitants in the district throughout Scotland, including all burghs, is under 29,000, while the average for the county is upwards of 93,000. Lanarkshire is so exceptional that it might well be put in a class by itself, in which case the averages would be respectively 24,000 and 78,000 or a little over. Even more important is the fact that such a large number of the districts fall below the average, while a comparatively small number of very populous districts bring up the average and render it more favourable in appearance than in reality it is. It should be observed, too, that districts have no independent existence: they are fractions of a county. The County Council can make, un-make, re-make them, altering their number, size and arrangement from time to time.

The Secretary for Scotland, in introducing the Bill, laid down the proposition that new administrative areas should, if possible, be familiar ones, identical with older ones, so as to avoid confusion. That being so, and all will admit the cogency of it, there are three areas known in this connection—the parish, the district and the county. The parish having proved itself, in a majority of cases, too small for the purposes of a single Education Authority, there remain district and county, and the former is selected as of a very appropriate size, neither too large nor too small, and as peculiarly lending itself to the treatment of burghs. Let us examine these alleged advantages in some greater detail.

If we are to speak of appropriate size, we must have a standard to which to refer. That standard cannot in this case be elementary education alone or chiefly, else there would be no sufficient justification for altering the present parish and burgh area. The change is chiefly in the interests of higher education, but care must at the same time be taken that elementary is in no way compromised—not to say sacrificed. The size must, however, be appropriate for secondary education, or the case for change is not proved. What such an area is, must be in part determined from experience, and in part from the pertinent facts of the situation. It is certain that, up to a very large maximum, the larger it is, the better, provided the territorial extent be not too great. Population is the first element, the second is its distribution. About twelve* in every 1,000 of the population are in receipt of instruction in Scotland at present, between the ages of 14 and 20, the period selected by the Registrar-General, and certainly wide enough to cover all secondary education. From that fact it may be judged that, unless the population to be provided

* It is, of course, desirable that the number be increased greatly.

for is considerable, no graded system of schools is, owing to the paucity of pupils, possible within the area. Most organisers would ask for a population of at least 100,000 for the purpose, but half that number might be accepted as a desirable minimum. No absolute rule can be laid down, especially as the relation of population and superficial extent is so very variable. Few of those competent to judge will probably deny that 25,000 is much too small a number for the purpose. How does the district area then stand? The eight undivided counties must be left out of the count. There remain 25 counties having 99 districts. Of these, 32 districts, including all burghs situated within them, have a population of under 10,000 each, and other 32 of under 20,000. That is to say, 64 districts, in 17 counties, or practically two-thirds, are *prima facie* unsuitable as areas for secondary education—they are too small to admit of any proper independent* provision being made for it. Another point of interest emerges here. Of the present School Boards, there are no fewer than 59, exclusive of the six included in the proposed "enumerated" burghs, with a population of over 10,000 each, 21 of them being over 20,000. Such Boards and their areas have good cause to complain if they are suppressed in order to make way for an equal number of equally weak bodies.

One often hears the related argument, drawn from the size, that a larger area, the county, which is the only other admissible in view of the Secretary for Scotland's definition, is objectionable, because, though confessedly suitable for secondary education, so close touch could not be maintained with elementary education as is possible in the district. This contention seems to rest, in great part, on a misapprehension. If the School Board were the managing body, it might perhaps be argued that every extension of the area would tend to render the touch less complete, and even to make it less possible. But the whole situation is changed by the introduction of a separate body of managers; *they* must maintain the local touch and not the School Board. Unless they do so they are useless: it is the very object of their existence. The election of a Parish Council will in future do much to maintain the local interest in elementary education and will afford periodical opportunity of calling to account the majority of the managers, with whom the virtual government of the elementary schools will lie, if the Bill is to effect its purpose. That being so, the argument, based on closeness of touch, loses all point. Besides, it has to be proved that touch would be less close in a county body than in a district: experience does not show that this is so in the present system of

* See P.S. on p. 178.

local government. It could not be maintained with any show of reason that County Councillors are in less close touch with their constituency than are members of District Committees. Nor would it be so with a County School Board more than with a District School Board.

The larger body, in fact, renders the closer local touch possible, for with a County Board, whose hands will be full with other duties, the devolution will extend much further—so far, indeed, that practically elementary education will be wholly managed locally. The larger area affords the required scope for the two bodies, and thereby gives a freer hand to the constituent elements—the parishes. Such a consideration suggests that the proportion of the managers—two-thirds—stated in the Bill as to be elected by the Parish Council should be retained. If, however, the School Board were a district one, it might require to appoint at least one-half the managers in order to maintain effective control. All this applies specially to rural areas, for where the population is urban or suburban no difficulty of this kind will arise whatever the population.

The argument that the district is peculiarly suitable for the treatment of burghs, I confess, I am unable to appreciate. There seems to be absolutely no advantage in including burghs in districts rather than in larger areas. The fact that police burghs "already have representation in the County Council" would seem a reason for including them in the county; but, on more general grounds, there is no reason why they should receive less favourable or appropriate treatment in representation, which is to be fixed by the Department, or in any other respect in the larger area than in the smaller. On the contrary, it would be altogether an advantage to remove possible causes of friction between burghs and local landward parishes. A county tribunal is more likely to dispense even-handed justice than a District Board, which can never free itself from the local atmosphere. A curious illustration has already been given of this in connection with the Bill. In one of the large counties there is one district which is fairly suitable as an area, viz., of 50,000 inhabitants: it contains two burghs, of nearly equal size, and their discussion of the Bill in a joint conference has issued in a resolution recommending that the district be sub-divided! Where there are five or six burghs in the district—not an uncommon case—things will certainly not be better.

But this is not all. It is only when we come to the actual duties of management of schools that the greatest practical difficulty emerges. In a district there is not enough to delegate

to make it worth the while of able men to undertake the duty of managers, unless the School Board divest itself of nearly all its powers. The Board must either delegate too little, or retain too little. The higher education, for example, it must leave to a joint committee acting for a whole county, for, as has been seen, the majority of districts would be much too small to undertake independent charge of this branch. The county escapes this difficulty. Its hands will be so full with higher education and the co-ordination of it with elementary that practically all the management of the latter may be devolved without unduly trenching on the proper sphere of the County School Board. The Board can delegate enough and still retain enough: through the increase of duties there are spheres for both bodies. In case of difference of opinion among managers or of appeal from the managers' judgment—a rare occurrence, it may be hoped—the district would be a most unsuitable tribunal. Dissensions would simply re-appear in a more extended form; the district is too close to the parish. The county would afford a calmer and more judicial atmosphere, its decision would carry weight, and its judgment would secure respect and acquiescence.

But let us turn to the arguments that are of a more strictly educational character. One of the main purposes of the Bill is to secure co-ordination. How is this to be accomplished if each of three, four, five or six districts is to proceed, as it will of course do, after its own methods? In a single county there will be as many as eight different methods of organisation and grading, different sets of text-books in use in the schools, different ways of making provision for the instruction, in so far as the Codes allow latitude of choice, different scales of salaries, if there be room for a scale at all, and variety in a host of other matters in which uniformity and joint management would conduce to efficiency and economy. Co-ordination among the elementary schools of a county will remain as far off as ever. With secondary education it is the same or worse. Central schools and departments ought to be placed in proper positions with relation to their feeders, the varieties of schools, higher grade, technical, secondary, should be carefully graded throughout, so as to cover the whole ground, to provide fully for all the educational requirements of the area, and to lead up to a complete unified system. The district School Board has an effective method of accomplishing this—by committing administrative suicide! It is to co-ordinate higher education by confessing its inability to deal with the subject and handing it over to a joint committee, *i.e.*, by adopting the county area. What has been said about grading applies to provision of bursaries, vehicles for

conveyance of teachers and scholars and all related matters. Surely the inference is obvious.

The other chief educational consideration is the position of the teacher. The district area leaves him in regard to promotion better, a very little better, than it found him. In many districts there is absolutely no scope for the grading of schools and of establishing therewith a graduated scale of salaries and securing the promotion of teachers. In others the scope is limited. In no case can it compare with the county.

On general grounds it would appear that the balance of evidence is in favour of the larger area. Most parishes would probably greatly prefer the county to the district, if the control is to pass from their own hands. A presumption has been established in favour of counties by what they have, under adverse circumstances, already been able to do, and shown themselves willing to do, for technical and secondary education. The county has greater authority, greater resources; it can do a great deal to help the parish which the district cannot, and it has shown that it has the will. It can assert the rights of education more effectively, it can maintain the local independence, whether as toward the university, the Central Authority, or other local bodies. It can make its influence felt and its voice heard, and in such a question as, say, the training of teachers, it can render service which no smaller body has either sufficient weight or sufficient resources to render. Nor must it be forgotten that all tradition and all experience are alike opposed to the district. The district bodies that exist are not independent bodies; they are to all intents committees of the County Council. There are no precedents to guide us as to the behaviour of an unrelated district body. It is utterly without educational experience, and, so far as is known, there has been but slight indication, with the exception noted above, of desire on the part of any district to undertake duties for which, in the opinion of the vast majority of those in the best position to judge, it is peculiarly unsuitable. The counties have, in many cases, already shown their practical interest in higher education by devoting large sums of money to it that they might have devoted, and were tempted to devote, to relief of rates. County administration has been successful in so far as it has had a chance of being carried on in the sphere of education, and many of the counties are, as a matter of fact, anxious to have the control of education, recognising that thus alone co-ordination and unification, with the benefits that accompany or flow from them, can be brought within measurable distance. The term 'county' has been used throughout as it is the only area larger than 'district' which answers

to the description of being old and familiar. But it is not to be supposed that even the county will do everything; co-operation between adjacent counties or between county and large burghs will also be necessary, and one or two of the counties are so small that their union with adjacent counties seems the natural and necessary preliminary to efficient educational administration.

If Parliament has any doubt of the actual situation, a small Parliamentary or Departmental Committee can easily ascertain the facts; a short local inquiry would elicit all that is pertinent, and a scheme of areas might possibly be drafted which, while adhering to existing units—parish, district, county—would be more elastic than even county areas and more adapted to meet the special wants of a country which presents vast physical differences and does not readily lend itself to a uniform and cast-iron method of treatment. It is significant that those who advocate district areas now attach the addendum that the districts must have power to combine in part or in whole with one another—a tacit admission of their inadequacy in themselves. So far as the writer is able to form an opinion, they are in the majority of cases unsuitable; even when suitable, they are greatly inferior to county areas; everything that tells in favour of the district tells much more strongly for the county. The predominant opinion of those most competent to judge is unmistakably for the county. This much is certain: there is at the moment a great opportunity, one that may not recur for a long time. It will be unpardonable if legislation is carried in the teeth of patent facts which an independent inquiry can easily establish. There is, in well-informed quarters in Scotland, an impression that educational interests may be sacrificed, to some extent, to political exigencies. A concordat which does not take into account the real educational needs of Scotland may throw back the cause a decade, but it will not settle the problem. So far as to area—by far the most important of the issues.

Mode of Election.—The *ad hoc* question, which comes next in order of importance, one is disposed to regard as a *res judicata*. There are in Scotland a few municipalisers, among them persons of weight, whose opinion is entitled to great respect. If the question were merely one of economy and efficiency there would be much to be said for an Education Committee of the County Council being adopted. Certainly as efficient a body might be had by this means as by a direct method of election: experience has shown this abundantly in the case of County Higher Education Committees. But the local interest in educational matters must be retained and ever extended, the electors must be made to feel the importance of

education and enabled to become potential managers and controllers of it: this is of the very essence of the situation. Besides, Town Councils could not be brought into the arrangement: their hands are too full already. For the election of an *ad hoc* body in large counties some combination of electoral divisions might be necessary, for a body so large as the County Council is unnecessary and, indeed, undesirable as the controlling body in education; but this would present no great difficulty; a committee like that referred to above could easily arrange the details in the cases where adjustment of electoral divisions was necessary.*

Finance.—The next important point is the relation of the Central to the Local Authority. This is closely connected with the question of area, for evidently the relations of the authority of a large area will possess greater freedom and independence than those of a small one. The Central Authority is left by the Bill with complete financial control: the arrangement appears rather one-sided, and has been made the subject of unfavourable comment by most of the critics of the Bill. In connection with it, there are certain considerations which ought to be made plain. The first is that two of the grants now absorbed have hitherto been devoted to higher, including technical, education: among the objects to which the consolidated fund is to be devoted there is *no general provision* for higher education at all. There will henceforth be one purse for all grades of education, and Local Authorities, particularly if they are small, may be tempted to cut down the expenditure for higher education, seeing that the deficit for it will require to come out of rates. The second is that there is involved in the arrangement an unfairness to rural areas. The residue of the fund, after satisfying preferential claims, is to be distributed in accordance with the average attendance of scholars. Such attendance gravitates toward urban areas, and hence the rural are bound to some extent to suffer. The natural demand, which has already been formulated, is that these grants for higher education, amounting to some £130,000 per annum, should be "earmarked" for their present purposes, and should be paid, upon some equitable principle of distribution, direct to the new School Boards as at least a nucleus of a higher education fund; otherwise there is great risk either of neglect of higher education or of necessity for compulsion from Department or Provincial Council to force them to do

* Most counties in Scotland would claim to be in some degree exceptional. The claim may be allowed to this extent,—there is something distinctive about each in situation, means of communication, number of burghs or the like which suggests rather some adaptation of areas to suit individual requirements than a uniform system.

their duty by it. Higher education, it may be noted, is at one point in the Bill spoken of "as hereinafter defined" (Clause 39 (3) (B)) but the definition is not given, while the two Acts (of 1887 and 1892 respectively) which defined technical instruction are among those scheduled as repealed. The Bill seems to assume or imply that the Department, with the aid of the Provincial Councils, will look after higher education, making "special grants" for it as for most other things. There is much to be said for beneficent despotism of this kind in education. If the sole regard were the making of grants, this machinery would probably be the simplest. But far more is involved. The country, the common people, the electors, must be made to feel the need of education of this kind and their own responsibility must be brought home to them. The greatest of all lacks in Scotland—speaking generally, for there are numerous exceptions—is a whole-hearted conviction of the vital necessity of better education, both in quality and in quantity.* This can never be got unless the local sympathy be enlisted and local co-operation in every form called forth. Far more real good will be done through what people do for themselves, however imperfectly, than through what is done for them. Hence it appears retrograde policy to withdraw from localities the moneys they are just learning to apply usefully for technical and other higher instruction. The administration of such funds locally constitutes an education in itself. It is only by coming personally in contact with wants and possibilities of supplying them that our people can be made to recognise their educational shortcomings. That is the real objection to making the Department the supreme and sole arbiter in financial matters. The question is not merely one of equitable distribution of funds, but of teaching localities to realise their wants and helping them to supply them for themselves. That is a matter of vital concern to higher education, and should, as such, appeal to all its friends.

The Provincial Councils proposed have met with a somewhat qualified reception. There is pretty general agreement that one Council, if Council there must be, acting through four district committees, would be a much preferable arrangement to that outlined in the Bill. If the district area is finally adopted, a Council becomes more of a necessity, if the county, less. It has the merit of giving the universities and teachers a look in on the

* Reference may be made to the recent Report of the Mosely Educational Commission *passim* for corroboration of the lack of educational interest in Britain generally as compared with America. Our people have no genuine *belief* in education. It is only commercial and industrial competition that is bringing home its importance, and even here as but a means to an end.

administration. Even for this purpose it would be better to provide for university representation on the School Boards and to remove the ineligibility of teachers for membership, or, alternatively, to allow the teachers representation without voting power. If the Council is to fulfil its main purpose of mediating between centre and circumference it ought to have cognisance of the curriculum of the public schools and changes in it, which have been a chief cause of complaint during the last few years: it might here fulfil a really useful function. But, on the whole, it would seem better to dispense with a Council altogether. If proper areas are secured, the School Boards will be quite competent to hold their own, and work out their own salvation: but not otherwise.

The Religious Difficulty.—No treatment of an education Bill could be considered complete in this country without some reference to the "religious difficulty"—save the mark. It is a small question in Scotland, and, unless people are determined to pick a quarrel, it seems hard to find material for it in the present proposals. The exact terms in which the subject is dealt with have already been cited under Part II. of the Bill. I confess that the Clause seems to me eminently just and singularly free from bias of any kind. That it is so may be inferred from the language used of it by extreme partisans on either side. "Are we to be left to the tender mercies of School Boards, and to come hat in hand to them for help?"—says one side: "Are we to give grants to schools not under our control or management?"—says the other. There is, perhaps, quite as much justice in the former as in the latter cry. Others object on the ground that it will introduce a bone of contention at elections, and that the question is one to be settled definitely by Parliament, one way or other, and not by localities. Especially is this opinion held in the central and western portions of Scotland, where the Roman Catholic schools are chiefly concentrated. But surely two public bodies—School Board and voluntary managers—may be trusted to effect an equitable adjustment of their differences. The Boards can offer "such conditions as they may from time to time prescribe." If the voluntary schools do not choose to accept them, there is no harm done on either side. No schools, voluntary or other, can reasonably claim to draw on public rates without submitting to some conditions or other. For the rest, common sense, common educational aims and interests, and good feeling ought to remove difficulty and complete the transaction. One can see no reason why a School Board should desire to treat voluntary schools unjustly. If two public bodies cannot settle a question of so

small dimensions, there will be reason to doubt whether the country is yet ripe for self-government. The Bill goes far enough and yet not too far, and furnishes all the materials and conditions for the solution of the question.

Omissions.—Several complaints have been made of the omission from the Bill of any reference to the training of teachers. Confessedly, there is much to do in the direction of increasing the available facilities in the case both of elementary and of secondary teachers. But it may be doubted whether legislation could do much save in imposing a general duty in the matter or in empowering the outlay of funds upon it. To this extent provision might be made for such training, the Central and the Local Authorities being enjoined to adopt measures and to incur expense for the purpose.

Attention may be called to another point which should be kept in view—the consolidation of legislation relating to education. Parliament has been active in the sphere of education since 1872 and onwards, and during this period more than a dozen enactments relating to it have been placed on the Statute Book. Portions of these have been modified or repealed from time to time, and one has only to look at the Schedule to the present Bill to see how far it goes in the same direction—no fewer than nine Acts are affected in whole or in part by it. Educational legislation has to be studied and worked by many besides trained lawyers, and it is a thing much to be desired that what the Bill designates as "the Education (Scotland) Acts, 1872 to 1904," should be accessible in a compendious self-consistent form for reference and guidance. Such consolidation, if it could be effected, would be an immense boon alike to teachers and to administrators.

Conclusion.—Looked at broadly, the Bill contains the elements of a system that may last for a generation. It requires amendment at several points: but has only one serious, some think fatal, error as it stands—that of area, and that not a matter of principle. We are committed to enlargement of area, and it is a detail, though a vital one, to what extent the enlargement shall be carried. It may seem strange to those unacquainted with the circumstances that so much stress should be laid on this one point. Some enthusiasts go so far as to say, "Better no Bill at all than the district area." Though that is an extreme view, yet it is hard to resist the conviction that for elementary education the district is no improvement upon the parish, rather the reverse; for secondary education it is in the great majority of cases useless, if not impracticable: the change can be justified on neither ground. With unification, with *ad hoc* election, with the abolition of cumulative voting, with consolidation of funds, with potential

transference of endowments to the public authority, with the recognition of the university and of the teacher, with many other features, there is general, almost universal, satisfaction: the defects, all which can easily be remedied, are the failure to make adequate separate provision for higher education, the undue preponderance of power, especially in financial concerns, left with the Central Authority, and *the area*.

30th April, 1904. JOHN CLARKE.

P.S.—The Second Reading debate in the House of Commons has taken place since the foregoing was written. A Member who took part in it writes that it was "inconclusive"—a description one is forced to admit to be correct. The readiness of the Secretary for Scotland to adopt the line approved by Scotch opinion is, of course, the best earnest that due weight will be given to all valid objections to the present terms of the Bill. It would seem as if the matter of *areas* requires further examination in view of local characteristics. For that purpose some local inquiry may be necessary; this has been suggested above. In speaking of districts, the Secretary for Scotland remarked that each district need not necessarily have a complete machinery of graded schools with a secondary school of its own, and that there was a radical misconception prevalent regarding the Bill in this respect: the districts have only to make "a proper provision for secondary education," but they may do so through the schools of other districts. There may be such misconception in some quarters, but that is not the main argument or the real objection to the small area of the district. It is that they *will not* combine with one another, unless they are forced to do so. Local bodies of that kind never have agreed to sink local aspirations and local ambitions for what appears the glorification of their neighbours. Districts A and B will never voluntarily agree to tax themselves for a school situated in X, and much less will A, B, C, D, E, etc., be got to agree to do so. Compulsion is the alternative, and that would augur badly for the success of the joint school. The enlargement of the area obviates all that. The contention is that this enlargement should be made in the first instance with power to sub-divide or combine as circumstances may render necessary. The debate emphasised the point that the local touch and interest are to be maintained by means of the *managers*. That tells powerfully for the larger area under which alone there will be room for managers to have a distinct sphere of action.

14th May, 1904. J. C.

III.—NATURE-STUDY: ITS PROGRESS AND INTERPRETATION.

THE PRESENT POSITION OF THE MOVEMENT, AND A DESCRIPTIVE REVIEW OF THE HOME COUNTIES NATURE-STUDY EXHIBITION AND CONFERENCES, 1903.

By Wilfred Mark Webb, F.L.S., Member of the Executive and General Purposes Committees of the Nature-Study Exhibition, 1902, and Honorary Secretary of the Home Counties Nature-Study Exhibition, 1903.

(1) INTRODUCTION.

In the titles of previous articles on the nature-study movement, the term nature-knowledge was used because it seemed inadvisable to adopt a new name until it had a special and understood meaning. At the same time a strenuous endeavour was made to show what in American nature-study was educationally worthy, and, more important, what was the consensus of opinion in this country as to the best method of "acquiring knowledge without sacrificing the power to act."

Many things have happened recently in the teaching world, and now, perhaps, it may be possible to speak of nature-study and be known to mean the educational methods and materials which, at the outset of a child's career, are at once the most natural and the most attractive; which bring the learner face to face with what is least artificial in life; and which, by training him to observe accurately and spontaneously, cause his mind to lay in a store of first-hand knowledge that will render intelligible much of the hearsay that he may afterwards have cause to remember.

SYNOPSIS.

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(2) THE OFFICIAL REPORT OF THE NATURE-STUDY EXHIBITION, 1902.

When last the present writer surveyed in these pages* the questions at issue, the Official Report of the Nature-Study Exhibition of 1902† had not been published. He contented himself, therefore, with summing up the papers read at the conferences held in connection with the undertaking. It may be advisable to point out that the introduction to the volume, as well as the Report itself, tend to confirm the general conclusions arrived at.

Apart from the list of awards, the Judges' Report‡ chiefly concerned itself with the Exhibition "for the benefit of future organisers of nature-study," and, on the other hand, with mentioning some matters to be avoided.

The following list shows the work of "special excellence":—

(I.) Studies on living things.
(II.) Seasonal Studies.
(III.) Regional Studies.
(IV.) Nature-Diaries.

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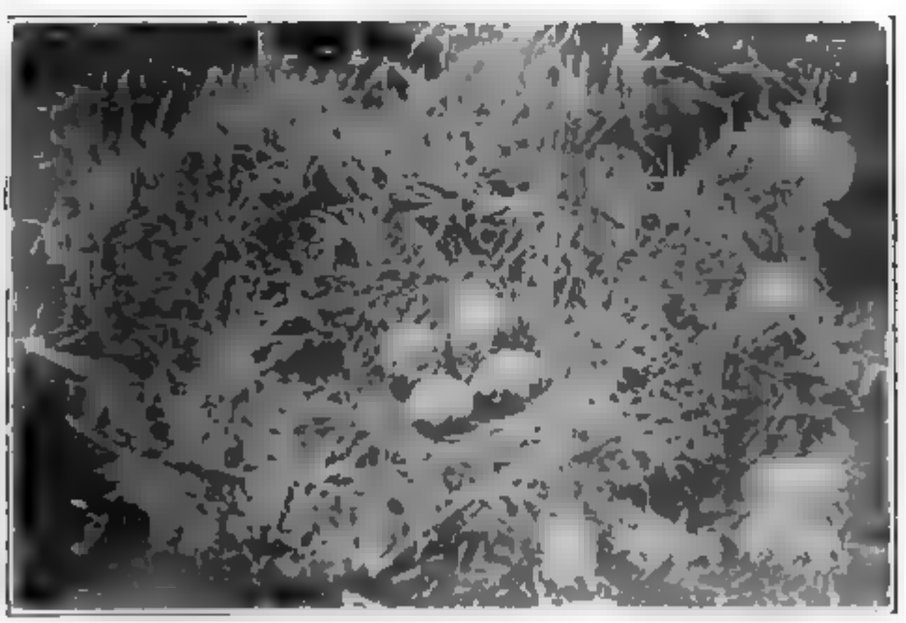
* "The Record of Technical and Secondary Education," October, 1902. pp. 387-426.

† "Official Report of the Nature-Study Exhibition and Conferences, August, 1902" (Blackie and Son Limited, 1903; price, 2s. 6d.).

‡ Signed by Mr. A. D. Hall, Professor Miall, Principal Lloyd Morgan, Professor J. Arthur Thompson and Professor Robert Wallace.

Photograph by [*J. P. Raverat.*

A MOORHEN'S NEST.



Photograph by] [*J. P. Raverat*

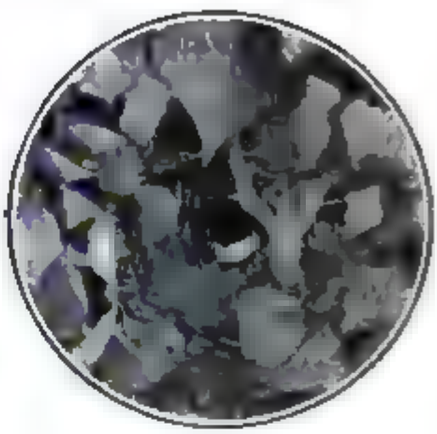
A PLOVER'S NEST.

NATURE-STUDY AT BEDALES SCHOOL

(By the courtesy of the Head-master).

Photographs by] [*E. F. Wenser.*

A YOUNG MAGPIE. A WAGTAIL, SITTING.



Photograph by [*W. L. Roberts.*

THE CAMP IN THE NEW FOREST, 1902.

NATURE-STUDY AT BEDALES SCHOOL

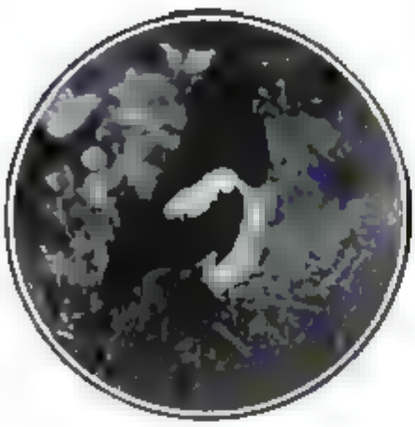
(By the courtesy of the Head-master).

Photograph by] [*E. F. Winser.*

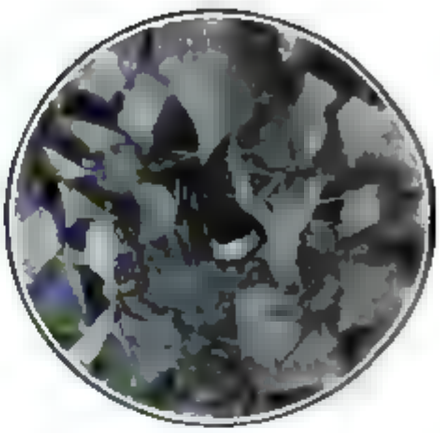
AN OAK TREE IN THE NEW FOREST.

NATURE-STUDY AT BEDALES SCHOOL

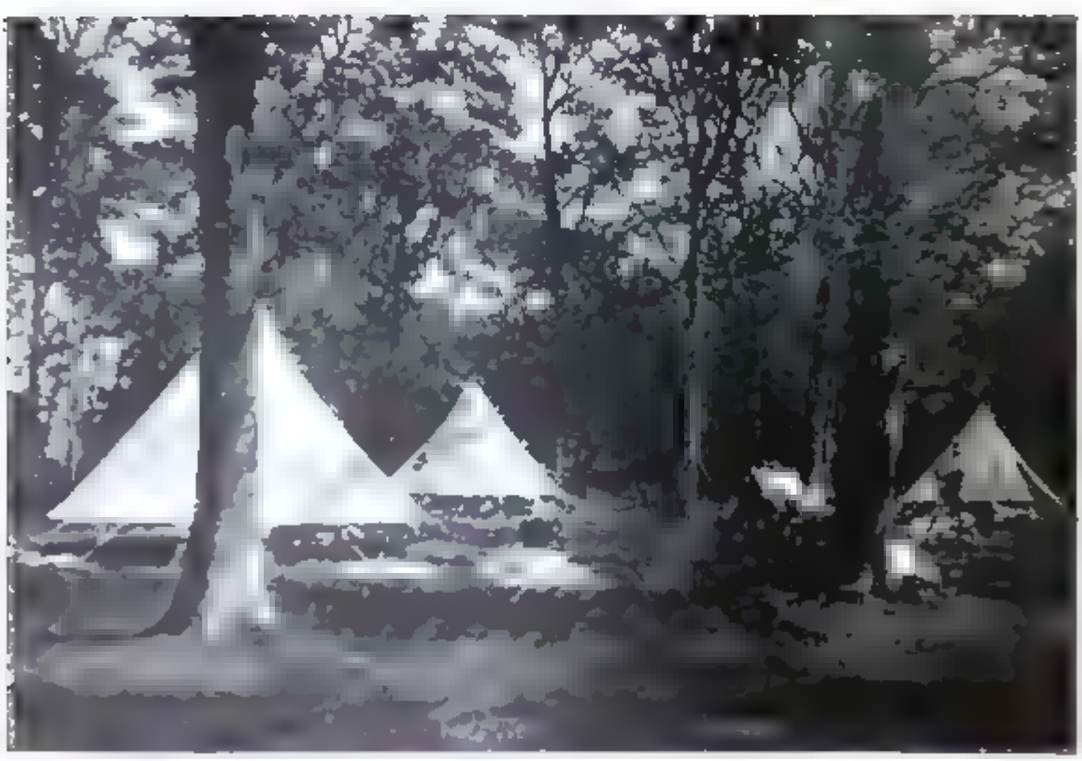
(By the courtesy of the Head-master).



Photographs by]
A YOUNG MAGPIE.



[*E. F. Winser.*
A WAGTAIL, SITTING.



Photograph by [*W. L. Roberts.*
THE CAMP IN THE NEW FOREST, 1902.

NATURE-STUDY AT BEDALES SCHOOL

(By the courtesy of the Head-master).

Photograph by [*E. F. Winser.*

AN OAK TREE IN THE NEW FOREST.

NATURE-STUDY AT BEDALES SCHOOL

(By the courtesy of the Head-master).

Photograph by] [*E. F. Winser.*

THE LIFE-HISTORY OF THE LARGE TORTOISE-SHELL BUTTERFLY.
(BROOKE'S CASE AT THE SHOW)

Photograph by] [*E. F. Winser.*

"THE SHOW" HELD ONCE A YEAR.

NATURE-STUDY AT BEDALES SCHOOL

(By the courtesy of the Head-master).

(V.) School Gardens.
(VI.) Vivaria and Aquaria.
(VII.) School Rambles.
(VIII.) Simple Apparatus.
(IX.) Those exhibits which recognised that nature-study implies an appreciative outlook upon the whole environment.

The judges did not by any means confine nature-study to the consideration of animals and plants, and emphasised its wide scope.

The four paragraphs which are quoted below relate to "lines of "work which seem less valuable than others which are well known "and quite practicable."

1. The copying of diagrams and drawings from books.
2. The construction of theoretical diagrams to illustrate supposed operations of nature.
3. The pressing of wild flowers and the pinning of butterflies when carried on without a special purpose.
4. The exhibition in class or school-room of specimens on which no work has been done, which suggest no special inquiries and which have no relation to the district immediately surrounding the school.

In the Committee's Report,* a classification of the various exhibits was made in accordance with the ideas, methods and matters underlying them. It will be remembered that no restrictions were placed upon what should be sent in to the Exhibition, with a view to finding out what was passing in this country under the name of nature-study. In the report, then, purely scientific or economic work falls under the head of zoology, botany, economic entomology, horticulture and agriculture; the informational training, which County Councils had been giving to teachers, is characterised as nature-knowledge, while the work in which we are more particularly interested comes under the heading of observational lessons, field work and nature-study.

For instance, the exhibits in Group C (Elementary Schools) were considered under the following headings:—

I.—Observational Lessons.
- (*a*) Lessons on specimens gathered by the pupils.
- (*b*) Descriptive lessons—Composition.
- (*c*) Records.
- (*d*) Drawing, Painting and Modelling from natural objects.

II.—Nature-Study.
- (*a*) Physical aspects of Nature.
- (*b*) Animals and Plants under control.
- (*c*) Field work.

III.—Economic Nature-Study.
- (*a*) Horticulture.
- (*b*) Poultry and Bee-keeping.
- (*c*) Agriculture.

* Signed by Sir John Cockburn, Mr. A. G. Legard, H.M.I., Mr. H. Macan, Mr. J. C. Medd and the late Mr. T. G. Rooper, H.M.I.

Throughout the Report, which contains extracts from descriptions by the actual teachers, those points are italicised which show the true aims and methods of nature-study. It will be found that they are quite in keeping with the ideas that have been brought forward in previous articles and illustrate that teaching which should form part of all general education. In this connection we may give a few brief extracts:—

"In the lower forms it (nature-study) is used *to cultivate the powers of observation and expression.*" (*Sexey's Trade School, Bruton.*)

"The object is to conduct the nature-study of the school in such a way as *to arouse interest in all natural phenomena and to foster the spirit of inquiry.* The use of note-books is not adopted, as it tends to divert the mind from the subject in hand; and as the children are not likely to forget their own discoveries, notes are not needed, at any rate during the lesson. *Wherever direct information is given by the teacher, the faculty of association can be relied upon to give the necessary stimulus to memory.* It has seemed to be worse than useless to systematise over-much in these studies. One has to take for subject-matter such objects as are at hand. Brush-work is resorted to as a simple and effective means *of representing the beauty of which they become conscious in the course of their study.* The woodwork (nesting boxes, etc.) and baskets were included in order to show that the children (girls and boys) are encouraged to make as much as possible of the apparatus required for their nature-study." (*Coombe Hill School, Westerham.*)

"The nature-study work of this successful experiment in education consists o plant lore and rock lore and star lore, as far as possible gained at first hand, and opening eyes to the beauty and wonder of the worlds. The master sets himself *to tell the children as little as possible, to make them see and think as much as possible,* and to supply them with a key to all future problems, for to train children to reason in one subject is to train to reason in all. The *mental faculties of the young have no place for abstractions, and their reasoning powers can best be developed on the things they can see and handle.*" (*The Ruskin School Home, Heacham-on-Sea.*)

"The work shown consists almost entirely of out-of-school pursuits. The exhibit stands for a tradition which has been continuous in the school for nearly 70 years. This tradition lives from boy to boy, but is also kept alive and cherished by the old scholars, both individually and as an association, and further *by the hearty moral support of all the masters,* whether they are naturalists or not. In this way we get a mind alert to see all that is going on around it." (*Bootham School, York.*)

"To train the students *to observe and love the forms of nature around them, so that they may obtain the fullest enjoyment from their natural surroundings. Thus, the gap between work and play is bridged over.*" (*St. Margaret's School, Bushey.*)

"*The nature-study work in Forms I. and II. is entirely voluntary and very popular, and usually about ten minutes at a time are devoted to it at the end of science and drawing classes.*" (*Streatham High School.*)

"The methods of teaching adopted are *the fostering of the children's own observation of actual objects.*" (*Schools of the Leicester Board.*)

"Let the children bring specimens they themselves gather of wild flowers or grasses, and, in autumn, leaves and berries, insects and so forth; base most of your object-lessons on these specimens, and also on *other things they see going to and from School.*" (*Pailton School, Rugby.*)

"Nature-study is going on all the time; *there are no hard-and-fast rules setting down one day or one hour to any particular subject. Everything that can be taught by observation and by handling the actual object is so taught.*" (*Rangeworthy School.*)

"The particular phase of nature-study which my exhibits were intended to illustrate was the life-history of the plants and animals *which come under the actual observation of my scholars.*" (*Bitterne Park School, Southampton.*)

"In school, too, a child is brought out in front of the class and questioned on the walk by his fellows, and the one who succeeds in asking a question he cannot answer takes his place. Marks are given to the one who survives most questions. We call this a 'game'—'the survival of the fittest.' It is immensely popular with the lads, and co-ordinates the teaching of spoken English with nature-study. The flowers and leaves gathered are used in the drawing lesson as a basis of design also." (*Utley Board School, Keighley.*)

"Our nature-study then may be summed up as *an out-of-school recreation, strictly voluntary; practically all his knowledge must be 'found out' by the boy himself, the teacher being merely a director.*" (*Langport and Huish Episcopi Board School.*)

"Incidental work forms a large part of the nature-study. *Common objects of pond, garden and field are studied in their natural surroundings*, and, if possible, brought home to be studied in greater detail in leisure moments." (*Cambridge Training College.*)

"In their course of work they attach 'special value to the investigations, made by the students themselves, on the structure and habits, etc., of the animals they *study!*'" (*Froebel Educational Institute.*)

Perhaps the most obvious result of the Nature-Study Exhibition *of 1902* has been the number of Local Exhibitions and Conferences that have followed it. One of these, the Home Counties Nature-Study Exhibition held in October and November, 1903, by kind permission, at the offices of the Civil Service Commission, we propose to consider in detail in this article. A School Nature-Study Union, with the object of directly helping the schools in their work, has sprung up; and there is also a "Nature-Study Society," which will organise exhibitions for the country generally.

(3) THE HOME COUNTIES NATURE-STUDY EXHIBITION, 1903.

(a) THE EXHIBITS.

Turning now to the Home Counties Nature-Study Exhibition, which, roughly speaking, served a dozen of the counties within easy reach of London, we may consider its objects and results. It sought, in the first place, to promptly put into effect the recommendation made at the previous Exhibition held in 1902 in the Gardens of the Royal Botanic Society, Regent's Park, and to profit by that successful experiment. With this end in view, the exhibits were considerably restricted so as to be consonant with nature-study as a newly recognised educational method rather than with the study of nature in a general and hazy sense. Exhibits were invited from all kinds of schools, individuals and educational institutes, which were arranged for convenience in five groups. There were four Sections:—the First included

indoor work, schemes of lessons, essays on field excursions and instances of ordinary lessons co-related with nature-study. The Second Section referred chiefly to the records of outdoor nature-study, though methods of studying animals and plants under control were not forgotten. Economic nature-study in connection with school gardens, poultry and bee-keeping and useful or injurious animals and plants, constituted Section Three; while the three classes which formed Section Four were arranged to include collections of natural objects which had been made *with a definite purpose in view*. It must be said that a good deal of nature-study is carried on side by side with formal science work in secondary schools and that it is difficult to divorce the two; yet the attempt of the promoters of the Home Counties Exhibition to show only the former was, perhaps, even more successful than they anticipated. Here and there, one might see exhibits that seemed out of place owing to their formality on the one hand or their triviality on the other; but these were very few in number. It would not be easy to describe all the valuable exhibits, but we may pick out one or two most typical of the methods to be followed in the future.

In Group A the Froebel Educational Institute showed a representative collection of work both of the students of the Institute and of the children in the schools connected therewith. The brushwork was particularly good, and the note-books of the students exceptionally so. The few collections sent illustrated essays on the plants of particular habitats or districts, and there was a fine series of aquaria and terraria with living contents. A raised map of West London was also exhibited and some original star charts for children. Descriptions of excursions and visits to museums formed part of the exhibit, which included likewise some nature photographs. The efforts of the Froebel Institute give colour to the statement that the best work is not necessarily done by schools and institutions situated in the country.

The Cambridge Training College had also an interesting exhibit which, with the exception of the wall diagrams, was on true nature-study lines.

The most valuable proofs, offered by the Stepney Borough Museum, amply showed the possibilities of not confining museum exhibits to dead creatures.

A collection of twigs from Swanley Horticultural College was made with the intention of enabling the students to recognise familiar trees and shrubs in winter.

The Botanical Department of University College sent a detailed description of an expedition to the Norfolk Broads and Sand

Dunes, which was illustrated by maps, specimens and photographs showing the distribution of plants and the places which they inhabit. This kind of research, though carried out in much greater detail than would, of course, be attempted with children, and as a part of modern education in biology (which recognises that classification and structure are only parts of the science) is strictly in accordance with the spirit of nature-study, and should form an excellent training for those who wish to teach it.

The secondary schools were well represented, and Group B, which contained their exhibits, was somewhat the largest in the Exhibition.

Class 18 was devised for any means of promoting or recording nature-study work not mentioned in the scheme, and Alleyn's Boys' School exhibited a series of 'nature-study and observation leaflets,' written, one for each school week, by Mr. C. B. Gutteridge, M.A. The following is taken from one used in the autumn term* :—

"AUTUMN FRUITS."

To the discoverer.—*Work up* some of these points for the end of the week talk and essay. *Make drawings*, plain or coloured, with notes of your own. Collect a few good specimens.

I.—IN TOWN.

1. How they come to us.
2. In my garden.
3. Shapes, weights, colours, etc., compared.
4. Preserving.
5. In the market.
6. At the greengrocer's.

II.—IN THE COUNTRY.

1. In the orchard and kitchen garden.
2. Ingathering.
3. Wild fruits.
4. Damage done by weather, birds and insects, etc.
5. Harvest thanksgivings.
6. My own special observations.

Here and there it seems almost imperative that second-hand information only will be obtained, but much good work is suggested.

The dated and coloured drawings of germinating apple pips and sprouting potato tubers from West Heath School, Hampstead, were among this school's excellent exhibits.

The work of Bedales School can be well appreciated after reading Mr. Badley's paper (see pp. 190-4, and Plates I.-IV. facing pp. 179-80).

*Now published by Relfe Brothers.

Among many interesting records of observations by the pupils of King Alfred School, Hampstead, were brushwork studies showing the growth of chickens from the eggs upwards.

A remarkable instance of the work of a school which successfully pays attention to the natural history of its neighbourhood was to be seen in that sent by Tiffin's Boys' School, Kingston-on-Thames.

Turning now to girls' schools, we find that the pupils of Kensington Park High School were able to do good work in the garden of a London square.

Streatham High School was again to the fore, and was represented by a well-displayed series of schemes, essays and nature calendars, together with a collection of live animals.

From Clapham High School came an excellent exhibit. An essay dealing with the effects of light upon water and illustrated by many coloured sketches was particularly striking. We may mention also the scheme of bee-keeping and the experiments with growing plants, though the latter were possibly more connected with science teaching than with nature-study.

Queenswood School, Clapham Park, had exhibits in many classes which were well in accord with the scheme of the Exhibition. Work upon the weather and the making of sun-dials and lantern slides were special directions followed.

The collections which showed the habits of plants were a feature of the exhibits made by St. Margaret's School, Bushey, and also of the County High School for Girls, High Wycombe, and of Ipswich Endowed School.

Among preparatory schools, the work of University College Preparatory School, Hampstead, was upon the right lines, and that of Godstowe also deserves mention.

In Group C there were some very excellent exhibits of animals under control sent by Christ Church Endowed Infants' School, Blackfriars : the work in connection with the school garden at the "Invicta" School, Blackheath ; the long holiday excursions of Bellenden Road School, S.E. ; the terraria and aquaria from Orleston School ; and some lantern slides as well as the general exhibits from Chiselhurst Road School, Orpington, should be specially mentioned.

In Group D there was but a single exhibit, namely, that of the "Training College for Teachers of the Deaf and School for Deaf Children," but this was exceedingly representative of the value of nature-study as a method of teaching under particularly difficult conditions.

The work shown in Group E represented the efforts of individuals, though the exhibit from Mr. J. W. Marsh was partly made by his

pupils. An economic interest was represented by the specimens of, and observations by him upon, osiers grown for basket-making. The photographs by Mr. A. H. Hamm, showing the resting-places of some common moths and the protection afforded by their colour and markings, were very striking.

Some excellent work was done by children in the way of records; in writing or sketching or both by Miss Annie Primrose Farren, Miss Maude Chevalier Cobbold, Master Geoffrey Bond and Miss Gladys Clark Kennedy.

Messrs. J. G. and H. C. Dollman showed models of caterpillars, as well as life histories of moths and butterflies, which call for special comment.

Interesting exhibits were contributed by Mrs. Brightwen, F.Z.S., F.E.S., Mr. Owen Visger ("J. A. Owen"), Mr. Richard Kearton and Mr. R. B. Lodge, as well as by "the League of the Empire" and "the Society for the Protection of Birds."

The trade exhibits added interest to the Exhibition, and although it would be impossible to deal adequately with the various publications shown, yet one or two exhibits directly suggested lines of work in nature-study which might well be followed. These were the flowers and fruits of the British Botanical Association, dried in natural form and colours; and the long series of photographs showing the growth of a deer's antlers by Mr. Henry Irving, which illustrated continued observations that are so valuable, as well as the making of negatives for a definite purpose. A special scientific interest was aroused by Mr. James Lomas' illustrations and specimens of fossil plants, while modelling should receive an impetus from the exhibit of Mr. Harbutt's plasticine.*

A series of conferences were arranged, for the benefit of teachers, in the Theatre, which was once that of the University of London, and, in the evenings, a number of our foremost lecturers on natural history gave illustrated accounts of their work: to these we shall refer again (see pp. 190-217).

(*b*) THE OPENING CEREMONY.

In the absence, through illness, of Lord Avebury (Chairman of the Committee of the Exhibition), Sir HENRY HOWORTH presided at the opening ceremony. He said: I cannot tell you how delighted I am that you should have started this Exhibition in the Home Counties. Presiding this spring, at Dover, over the Congress of Natural History Societies of the

* See advertisement in "The Record."

South of England, I impressed upon my friends the necessity of trying to make natural history a little more what you propose to make it—that is, the study of living rather than dead things. You will remember the famous professor of botany at Strasburg—a very famous and a most learned German—to whom a lady took a leaf and wanted to know the plant to which it belonged. He said:—"Ma'am, it is quite impossible for me to tell you. If you will put this leaf between two pieces of blotting paper, and then between a number of pieces of brown paper and sit upon it for a fortnight and then bring it to me, I shall be able to tell you exactly the plant to which it belongs." That is the kind of natural history which has never attracted me very much. What we want is the study of living things, and we should especially impress upon young people that the beautiful things in this beautiful England of ours were not made to be stripped and cut and destroyed. They are sent us to be cherished and cultivated, or else we shall lose all the choicest among them. It is very easy to get a butterfly and put a pin through it and put it into a box, and after a few years it becomes very dusty, and we think we are naturalists in doing this. We are nothing of the kind. What we want to know is—the whole life-history of these and of other creatures. I am quite sure that those of us who like the country think it our duty to try and bring the country into London as much as it is possible, and I think that there should be a place where the London boy, who cannot get into the country very easily, can go and study for himself the plants and animals which live immediately round London and which can help him, therefore, in his little holiday times when he does go away.

Sir JOHN COCKBURN, in opening the Exhibition, said it was to Lord Avebury they owed so much in leading the way to this new form of education—not this new subject. They could not lay too much stress upon the fact that nature-study is no new branch of study, but a novel method of treating all departments of knowledge. He considered it as a new way of regarding things—looking at Nature and at other questions that arose, whether within the region of practical politics or in science and art, with eyes which were adapted to viewing phenomena as they were to-day and not only in the light of former experiences. Nature-study appeared to him to be part of a veritable renaissance which was taking place all around them; a spring of new life freeing education from the accumulated dust of by-gone days. He thought this was what nature-study meant. It was the opening of the windows of the mind to look at Nature as a whole and as a reality. He understood there had been a sort of war lately

between nature-study and books. He had heard one enthusiast suggest an Alexandrian bonfire of books, and declare that the only book that should be used was that great Book of Nature which had been so aptly and so beautifully described as the Manuscript of God; but he thought those who loved books were not disposed to see in nature-study anything antagonistic to books, but rather something that would throw a fresh light on and create a new interest in books. The book to the child should be explanatory and supplementary rather than preliminary to Nature. The mind should first be interested in actual objects. The primary object should be to awaken interest, for without that motor power they could do nothing; but having once awakened interest, they could train the mind on to any track in the pursuit of knowledge. That preliminary interest must be secured in the first instance, and that was most readily effected by means of the study of Nature and natural phenomena. They all knew that a child is fond of natural history in all its branches. This interest was much better secured by observation and object-lessons than by means of books. Explanation from the lips of the teacher was necessarily very much more attractive to the child, and very much more educational than any mere dead letterpress or text-book, although he had to say that if a teacher was going to act as a sort of verbose and formal showman to Nature, like the showman we sometimes followed round any celebrated museum, then the desired object would not be attained. Those who were working in this movement could very readily combine the study of Nature with the love of books—neither was contradictory to the other. Sir John said he was rather surprised when he suddenly found that, in the absence of Lord Avebury, he was to be entrusted with so honourable and important a task as to open the Exhibition. He presumed it was because of his association with the Nature-Study Exhibition of last year, in which he had the honour of being a worker with many of those present, and he felt sure all those who were then so associated rejoiced to see that their labours in connection with that Exhibition had borne such good fruit, as was evidenced by the fact that nature-study exhibitions on the large scale had become necessary and popular institutions. Only last month he had the pleasure of presiding at a Nature-Study Conference and Nature-Study Exhibition in the commercial town of Barry in South Wales, and the matter was being taken up eagerly by the Local Authorities. After all, this was only as it should be in so vital a matter of education, and as one who laboured with Lord Avebury and many others following his lead, he was proud to

take part also in the Home Counties Nature-Study Exhibition of 1903. He had the greatest pleasure in declaring the Exhibition open.

(*c*) THE CONFERENCES FOR TEACHERS.

An effort was made by the Committee of the Exhibition to arrange that the speakers at the Conferences for teachers should be chosen from among those whose work and methods were shown by the Exhibition in 1902 to claim special attention.

(i) *PRACTICAL METHODS OF NATURE-STUDY IN SECONDARY SCHOOLS.*

The first Conference dealt with secondary schools, and Mr. R. Hedger Wallace (Chairman of the Executive Committee) presided.

Paper by Mr. J. H. Badley, M.A.

Mr. Badley gave an account of the work during the last ten years at Bedales School of which he is head-master. At first, the teaching was of an ordinary botanical character, though they considered themselves very enlightened in having some outdoor garden work instead of continual games in the afternoon; in keeping daily weather records; and also in encouraging the voluntary study of natural history during free time, in the way that has been so long and so wisely developed in the school of the Society of Friends. It was not long before they grew dissatisfied with this. Botany remained chiefly a matter of classification of names; the garden work was apt to degenerate into the doing of odd jobs—weeding paths and beds, sweeping up leaves, making bonfires and so forth, with, at best, plenty of digging—excellent, no doubt, as exercise but not specially educational; while natural history, they felt, was too much confined to collections of butterflies, for which a dozen were slaughtered for every one that was properly mounted, and to pressed flowers, which well deserved the contemptuous name of "hay" given to them by scoffers among the boys. They came to see that any real study of Nature must be a study of the *life* of plant and animal; that the work in class-room and garden alike was of little account unless they were associated and each vivified the other—that both, in fact, must be treated as laboratories for experimental research rather than as places merely for physical and mental exercise; and that, in natural history, observation must supplement and, as far as possible, supplant

A SONG THRUSH: SUBSTANCE, SHADOW AND REFLECTION

A PICTURE BY Mr. RICHARD KEARTON

(From "Wild Nature's Ways," by the courtesy of Messrs Cassell and Company Limited)

PLATE VI.

A WOOD-PECKER PEEPING OUT OF ITS NESTING HOLE.

A ROBIN LOOKING AT YOUNG THRUSHES AFTER FEEDING THEM.

PICTURES BY MR RICHARD KEARTON

(From "Wild Nature's Ways," by the courtesy of Messrs. Cassell and Company, Limited).

A BLACKBIRD'S NEST.

A PICTURE BY MR. OLIVER G PIKE

(From "Woodland, Field and Shore," by the courtesy of the Religious Tract Society)

YOUNG NIGHT JARS

A LONG-TAILED TIT'S NEST

PICTURES BY Mr. OLIVER G. PIKE
(By the courtesy of the Photographer).

From "In Highland" by the courtesy of Mr. T. Fisher Unwin.

collection which might well be left to batten on stamps and picture postcards.

While we were still casting about for the right lines on which to make these changes, we received, as so many of us in this country have done, a powerful impulse from America. It was a visit from Mr. Jackman, of Chicago, and his enthusiastic advocacy of this method of nature-study that set us at work studying the *conditions* of life in connection with the life around us, not only plants and animals, that is, by themselves, but in their natural surroundings, as affected by the seasons and by local conditions of all kinds; the characteristics of the country, whether valley, upland, marsh, shore and so forth; and recording all not only in written notes but in colour; and not only the objects themselves, and their life-history, but the circumstances and conditions of their life, as shown in the landscape constantly changing with the changes of the seasons. With this conception of nature-study, as the study of *life and the conditions of life*, we began to map out a larger and more connected course of study, both of the life of the individual and of the neighbourhood as a whole. As before this still included class-work, work, that is, in which there is little or no choice, and also voluntary, or semi-voluntary, work, undertaken in the children's free time. We had better take these separately, beginning with the class-work. And as the same class-work suggests the class-room, I must say at the outset that by 'class-work' I mean all work in school-time, whether indoors or out. With us, this work falls into four groups :—

1. The keeping of *weather records* of all kinds, with a view chiefly o showing the differences of the seasons and their effect on living things. Every day two or three of the younger children are told off in rotation to take the readings of temperature, pressure, direction and force—roughly estimated—of the wind, amount of rain-fall, hours of sunshine and height of the sun at noon—these last being done with simple home-made instruments. The readings are recorded graphically on charts, or, by the youngest, on monthly calendars, illustrated by drawings showing the seasonal changes noticeable in the month.

2. The *school garden* is a piece of ground reserved solely for school purposes, and containing—a botanical garden for illustration of the more formal class-room botany, and providing specimens for examination; an experimental portion to form an outdoor laboratory for common use; a nursery for young trees; an orchard; and a portion divided into plots for private use. Except that it is kept weeded during the holidays, the whole work of this garden and orchard is done by the boys and girls from first to last, under the

direction of a master on the staff. The experimental portion is used for growing all the plants most necessary for life, in different conditions of soil, manure, depth of planting and so on ; in fact, as I said just now, as an outdoor laboratory, to be used in connection with the class-room, in which further experiments are carried out in plant physiology and the chemistry of earth, air and water for the investigation of problems suggested by the garden work.

3. The *drawing* class, in which a large part of the time is given up to the representation in colour of natural objects—leaves, flowers, insects, animals—from life, and not from copies, I should hardly have thought it necessary to add, were it not that I had lately received, from a publisher, specimen copies of a so-called Nature-Study Series, giving outline drawings of such things to be copied below by the child ; a kind of nature-study this with the nature left out! In connection with these drawings of natural objects we do a good deal of work in design—preferring always to start direct from Nature, rather than from traditional forms of ornament. And drawing also plays a large part in nature-study in recording the life-history of plants and animals and of the year in the seasonal changes shown in the landscape.

4. What may be called *topography ;* beginning with rambles, whose object is not only to find interesting specimens but, even more, to notice the surface features of the country and the forces that have shaped it and are still at work ; then going on to sketch maps made during these rambles, distances being put in by guess-work, and rough models made at home from such maps; and, lastly, coming to the exact surveying and contouring of given pieces of country, and making large scale maps of it, both flat and in relief.

These all form part of the regular class-work. How, it may be asked, can time be found for so many extra subjects, when there is so much else to learn ? Well, the time required is not so great. We give, on an average, from half to three quarters of an hour each morning, and an hour each afternoon, to such work. The taking of the weather records occupies only a few minutes daily, and each child does it only for one week in the term. The actual class-room work above described is all the science teaching that we give up to the age of 13 or 14. The garden work, drawing and surveying all take place in the afternoon, two afternoons in each week being altogether devoted to such work, and still leaving two for games and two free for the voluntary work now to be described.

Semi-voluntary I ought, perhaps, to call most of it, for, though a considerable amount of choice is given, all must at first take

something. If some branch of natural history is chosen, the choice of the particular line is largely at the discretion of those older boys who have undertaken the charge of the different departments of the school museum, and who see to it that the youngsters do not wantonly destroy in the name of collecting. On the half-holidays in the summer we have expeditions organised by members of the staff, by whom the younger boys and girls are taken in turn to various centres of interest, where they divide into parties and follow their different hobbies. The older ones may either join these expeditions or go in smaller groups by themselves. At the end of the summer term we have a show of the results of the work so done (see Plate IV., facing p. 180), giving prizes for all that reach a certain standard, and keeping it for the school museum. There are four main lines of work:—collections, not so much of the ordinary kind as for special purposes—to show, for instance, the shapes of leaves, kinds of grasses, members of a plant family, the life story of plants or insects, and so forth; secondly, drawings and photographs from life of plants and animals, birds and nests and interesting features in the landscape and life of the locality; thirdly, note-books containing written observations of all such things, illustrated by drawings and photographs; and, fourthly, special maps of different parts of the district, as, for example, geological maps or contour maps on a larger scale. The younger children, as was said above, are required to go for these expeditions when their turn comes round, about once a fortnight, and to take up some one of these lines of work, but after the age of 13 or 14 it becomes entirely voluntary. By this time, in many if not most cases, interests have been developed which will lead them to further effort or to strike out new lines for themselves, both at school and in the holidays. Apart from such expeditions, there are also several quite voluntary occupations. All who like, for instance, can have plots in the school garden to cultivate, alone or in groups, exactly as they like; those who are specially interested in animals can keep them under certain conditions which ensure their being properly looked after; those who wish can also take part in the charge of the school bee farm, or have hives of their own; and we are about to extend this also to the poultry farm. The time for such voluntary work is found on the two half-holidays in each week or before breakfast, and during any free time that they have throughout the day.

In conclusion, I should like to make two remarks upon the plan of nature-study such as has been outlined. The first is that the greater part of the work is done out of doors—in fact, all except

the more formal botanical and chemical class-work; the larger part, though not all, of the drawing; and such things as setting up specimens and writing out of notes, and even these are, in almost all cases, the sequel of work done out of doors. This brings, to my thinking, a double gain: partly physical, in that it provides an excellent relaxation from the more sedentary work of other studies and for a good deal of activity in the open air, in addition to the usual games; and no less a gain in bringing children into constant contact with outdoor Nature, and so bringing them to interests and influences the value of which upon their lives can hardly be over-rated. The second remark is that, in all this work, books, pictures, diagrams and all such things have a very subsidiary part. If nature-study is to be worth anything, it must be the study of Nature at first-hand. This is the one subject of all others that we should try to keep clear from the trail of the text-book; the subject of all others in which it is easiest to teach children to look with their own eyes, and not through ours or other people's.

Yes! that is easy enough—perhaps someone will think—for a school happily situated in the country. But what about the schools that have the misfortune to be cooped up in towns? Well, I think that we are coming to see—meetings such as this show that we are coming to see—that we owe it to our children that a part, and not the least important part, of their education must be out of doors, in the midst of living Nature. Something can be done in the way of occasional visits to green fields; and there can be, one would think, no school without the possibility of a garden; none in which, at the least, there cannot be a garden plot along one side of its court or playground—at the very worst there can be none in which there cannot be a bit of living Nature, if it is only in a window-box. The thing for us all to remember is that we shall not gain so much from the study of a hundred dead specimens or diagrams or photographs as from one bit of living Nature; and that the real aim of all nature-study worthy of the name is not to amass more "useful," or useless, knowledge but to learn to feel more of the wonder and beauty of life.

Paper by Miss Orme.

A second paper was sent to the Conference by Miss Orme, of the Girls' Blue School, Wells, from which some idea of the conditions and methods to be met with in this secondary school can be gathered. The paper was as follows:—

In the first place, we are not specialists in any branch of nature-study, we are merely learners in a few, the two which

appeal most to us being earth-structure and plant-life; in the second place, our girls do not belong to the leisured or to the professional class, but to that in which life means not original research and *inquiry*, not ideas and ideals, but labour, food, rest, amusement, talk—they are, therefore, necessarily limited in outlook and limited *in* vocabulary; in the third place, the curriculum of a secondary school, Division B, the requirements of public examinations and the deplorable inelasticity of time do not allow us the opportunity of working as long as we would in the open air. But it was with a deep realisation of the riches simply lavished on the district in which we are situated, and of the responsibility that their presence lays upon us, that we entered upon our nature-study. Within a radius of a very few miles we can find specimens of rocks of almost every geological period and, as necessarily follows, we have an extremely rich and varied flora. We have begun an attempt to compile what we are ambitious enough to call a natural history of Wells and its district. We started with our village city, drew its plan, found that the greater part of it was on the river gravel, while the rest was on the red marl, visited the places where the latter is exposed, noted its characteristics and the history of its formation, had a hunt to find exposures of the river gravel, coming upon it unexpectedly one day in the newly dug foundations of a house on the Glastonbury Road, finding in it fragments of old red sandstone, mountain limestone, dolomitic, conglomerate, red marl and lias. We were much exercised to account for the *large* patch of gravel which occurs here, until a local authority kindly offered us an explanation. By means of excursions we have endeavoured to make the girls acquainted with the character of the surrounding country. They have described the landscapes from certain view points and have filled in cyclostyled outline maps of the surrounding district. Time has been wanting for the preparation of the whole map by the pupil. All girls cannot join in these excursions, which are, of course, only occasional and which are sometimes too long for those who are not good walkers. I have, therefore, had panoramic photographs of the views from the various heights prepared, and these will be set before a class with a set of questions upon them which the girls will be required to answer, or they will be asked to write papers on what they see in the view and what they learn from it. The views are considered in connection with the map of the district seen in the photographs.

Several of our girls have visited various Mendip quarries, they have climbed up the narrow defile of our nearest gorge, pebbly

with "the débris of innumerable Decembers," they have stood in front of the huge mass of conglomerate under which "that ancient river the river Axe" issues in a clear brown pool from its subterranean waterway through the heart of Mendip, they have explored two of the huge caves which form a part of that waterway—from the top of Mendip they have looked down on the flat, marshy moorland basins of the Axe and the Brue with their bounding hill lines. Some have stood on the top of Brean Down by Weston-Super-Mare and looked down on the muddy channel through which the former river creeps out into the discoloured Severn Sea. We have sketched for ourselves pictures more or less imperfect, but still vivid of Mendip as it appeared at various periods 'in the dark backward and abysm of time.' We are gradually gathering together and classifying a small collection of specimens of local rocks, and we have made a list of the exact spots where such specimens can be obtained. On the top of Mendip the girls have been led to observe the characteristics of hill country, flora, the strong roots, the shrubby often prostrate stems, the many radical leaves, the small sometimes fleshy leaf surfaces, the short flower stems of those plants which are not wind fertilised and the peculiar flower structures of those which are. They have spent afternoons sitting on the grass of a lowland pasture noting the most frequently recurring plants, and the characteristics of height, leaf surface, etc., in which they differ from the plants of the upland pasture. In our woods, they have noticed the large amount of leaf surface, the sappy nature of many of the plants, and the rich, vigorous growth has led them to see the valuable properties of leaf manure. They have noticed the caterpillars which love the different leaves, and their methods of preparing a shelter for themselves in which to undergo the change into the pupa state. From the 'rhines' and ponds they have fished out duck-weed, pond-weed and water crow-foot, they have hunted for frog spawn and have watched the movements of newts. They have examined the plants which cover and drape our limestone walls. They have studied the creepers and climbers which find a home in the hedgerows, and have noticed how they make good their position there. In winter, they endeavour to distinguish shrubs and trees by their bark and method of branching. In spring, they eagerly watch for the first opening buds. The study of buds, their colour, size, arrangement, coverings, contents and time of opening has a special fascination for them. They learn to group plants by comparison and contrast. They easily, of course, recognise the family likeness

between the celandine, the wood anemone, the marsh marigold and the buttercup, and quickly grasp the points of similarity and difference by which this family is connected with or distinguished from that of the rose. They watch the behaviour of bees, the flowers they love to visit, the changes in colour or position which accompany the ripening of the stamens and pistil of various flowers. They hunt for opening capsules and pods, for the splitting fruits of the parsley and geranium family, the finding one in the act of splitting is almost as much 'touched with emotion' as the finding of the first violet in the spring. They have made collections of fruits which increasing knowledge enables them to classify. They watch the birds making havoc with fallen fruit in the orchard. They hunt and dig round the bases of trees and shrubs for seedling plants. I vividly remember the delight with which some girls who were with me counted the numerous plants we found growing in the pollarded tops of some willows by St. Andrew's stream. The agency of wind and birds as seed transporters was clearly seen. We called the trees 'the hospitable willows,' for many guests found dwellings in them. The cut and bent yet living twigs in the hedgerows, which, it seems to us, are trimmed unnecessarily often, continually demonstrate to us the great fact with regard to the channel of the food supply. The girls have noted carefully the signs of decay in the hedgerow plants, the varying autumn colours, the plants which lose their leaves first and those which lose them last. We have kept records of temperature, air-pressure, rainfall, and the girls have noticed the effects of rain on the surfaces of the street and the hedge-side, and the effects of 'weather' on plants and animal life. One or two girls have kept larvæ of butterflies and moths and have made observations on the changes which take place in them. Each girl has a nature note-book in which she is required to make weekly observations; a few make them almost daily, and more would do so but for the exigencies of lessons and 'practice.' They have made observations on many plants and animals seen in their walks. The rabbit, the squirrel, the hedgehog, the water rat, the water hen, the pheasant have all been made the subject of inquiry, in addition to domestic animals and pets. Two girls have made observations on the footprints of animals, and several on the habits and behaviour of birds. Each girl is required to make at least one drawing from Nature every week. They are by no means born artists and their attempts are often subjects for laughter and tears. Drawings of parrots, canaries, hens, cats, cows, horses have been sent in to me looking more like caricatures of the creatures in a Noah's ark than anything else. The girls have been

encouraged, however, to examine pictures of landscapes, trees, animals, flowers, and to notice how the effect of life likeness is produced—what the actual lines—where the shade—where the light—and an improvement can now be seen in some at any rate of the work done. Of course, the observations made by the girls are in many cases bald and commonplace enough; some show evidence of fairly close observation and good powers of description—in a few, a soul shines through the words. The sweetness of a bird's song, the beauty of a hedgerow, the freshness of morning, the quiet of twilight, the mystery of the stars has touched the spring which lets loose some deep fountain of feeling.

I have tried to show that in our nature-study we have set before ourselves a definite field of work. We have aimed at making our girls acquainted with the rocky skeleton which underlies the fair garment of the fields--with its composition, the conditions which determined its formation and those which have determined and are determining its present form. We have shown them the types of scenery which accompany that inner structure—the table land, the narrow gorge, the wooded glen, the well-defined ridge, the solitary tor, the open moorland, the sandy dune, the sandy flat, the rocky cliff, the pebbly beach. We have aimed at making plant life 'living' to our girls by examining it *as it grows*, watching its birth, the changes it passes through in its life-history, the conditions which modify it, its decay and death. And from what I have written it will be seen that as far as possible in our work we have let Nature be our teacher.

Paper by Mr. H. Lowerison.

Mr. Harry Lowerison, of the Ruskin School Home, Heacham-on-Sea, gave the third address.* He said:—

If you were to go over my school and that of Mr. Badley, you would see in mine in miniature, I think, what you would find in his on a very much larger scale. Practically all the work that he has told us that his boys do, and all the things they use, we have in our school, so perhaps it will be worth while, for a little time at least, to say something of the reasons why nature-study is at present taking such a hold upon the people of this country, because it is really—to use a slang phrase—"catching on." Last year I had as many and more applications sent in for each term than I could possibly accept. I put that down to the fact that around our part of the world—in Norfolk—there is not another school

*This was given *extempore*, and is, practically speaking, unrevised.

conducted on similar lines to our own, and people are anxious to have their children taken out in the open air. I think it is due to this fact that even the Manchester School is making up its mind that there are some things better in this world than merely getting on. If you ask the ordinary man in the street about this new education, he is sure to ask you first of all, "Is it going to help a boy to get on?" He means, of course, "Will it help him to get a little more than the dinner he needs and the clothes he wears?" Or: "Will it help him to get a little bit higher on the ladder up which I am very painfully climbing?" Well, now, to such a man as I have mentioned I actually have an answer on his own lines. I say this: "I am dissatisfied with the education of mere books. I want my children to see, to smell, to taste, to handle, to feel and to think about things for themselves. In books we only do all this at the best second-hand. I want to make their observation more acute and their records more accurate. I want to make their reasoning more patient and more certain." We are too apt, especially in this big London, to rush to conclusions to-day. Talking about the mere matter of observation, I wonder how many of us in this room could say how many steps we ascended to come into the portico of the hall. I will warrant, if we ask ourselves this question, 99 out of 100 of us do not know. We are not taught to see things and we do not see them. We go through life without noticing half the things there are in this vast world; without seeing half the beauty, half the wonder, that is daily before our eyes. Talking about records being accurate, a tale repeated is exaggerated; a tale twice told is a little more exaggerated; at the third telling the tale really becomes untrue. Now, seriously, the necessity for learning to make a record absolutely accurate applies, so far as my knowledge of woman nature carries me, much more to the female than the male sex. I will tell you why. Women are largely engaged with the narrow things of life. True, they are reaching out, and wise and sensible men are helping them to reach out; but it is those women who are mostly engaged with the narrow things of life who are more in the way of exaggerating things. You scarcely ever can get a woman who can tell as well as an average man what she has seen in the street. It may be she can tell you what things a lady wore, but that is not the kind of thing I want. To return to another point already raised—the making of our reasoning on what we have seen more humble. I wrote some little books about Epping Forest and about Nature round London, and my fellow teachers in London used to come to me about the things they had seen and did not

understand. One day a man, who is a Bachelor of Science, came to me, and he said :—

"I was out in Epping Forest last Saturday."

I said: "Yes, I saw you."

"I did not see you," he said. "Never mind." "Well now, do you know something very extraordinary about moles? When you pick them up they die in your hand!"

"Do they?" I said.

"This one did," he answered.

Now, that man is a Bachelor of Science and he said that, because a mole died in his hand, therefore moles died in anybody's hand. How far is that from the real spirit of science? How far is that from the patient observation and careful reasoning of a man like Darwin, who, for 40 years, watched earth worms, lovingly and tenderly, as one would watch something in which one was profoundly interested, and then the dear old man said :—"Now I will write about them: I know something about them." This person, this B.Sc., who had seen a mole die once in his hand, decided that moles, when you picked them up, always died. We want, I say, to make our reasoning much more humble than it is to-day.

I also justify my Nature teaching by the fact that it makes a man better fitted to succeed than ordinary education does. Somehow or other, we English people (I, as a pupil of such men as Thomas Carlyle, Ruskin and others, do not hold the opinion) think that if a man wears a red coat and carries a long knife (called a sword), he follows the highest profession that a man can. For children of people who want them to go into the Army or Navy, nature-study is going to be very useful. It will teach them to observe more keenly and record more accurately, and the lives of the men entrusted to them may at any time depend on the officers' keenness of observation. But many of my boys at least will go into counting houses, and what good will nature-study do to boys like that? Well, a man came to me the other day and asked me what I taught my children, and I told him, and he said :—"Well now, look here! A large number of those boys are coming into the City, I daresay about 20 per cent. will come. Well, put those boys on 'long tots' and let them play all the rest of their time." Perhaps some of you do not know what 'long tots' are. They are simply addition sums of tremendous length. That is what a boy has to do hour after hour, week after week, month after weary month, in this great city of London of yours, to earn a living, and the education you have to give him in the schools he mostly

forgets. Put him on 'long tots' and let him play, or take him out into the big world that lies around, give him a hammer in his hand, give him a knap-sack across his back and send him after rocks and plants, and that boy will be a man with a hobby that will take him away from the counting house, and he will bless the day that he ever came to a school where nature-study was one of the chief things taught. Well, now, you may ask me:—"What, after all, do you do at your own school that they don't do at other schools?" Perhaps we make a bigger speciality of Nature excursions and outdoor life than you do anywhere else. I think it was Charles II. who said that after all people greatly praised other countries and other climates, but he really did not see any reason for it; because, of all European climates, that of England was the one in which you *could* spend the greater part of the day for the greatest number of days in the year in the open air. It is absolutely true, and *you* would not believe it, those of you who live in London, who have fogs and such like little amenities, you would not believe *what* proportion of life you can spend in the open air. For myself, when I was a little younger certainly, I continually used to go and spend week-ends in the open air. Used to walk away from London as far as I could get, the farther the better, and, when I was very tired, turn into the nearest inn—not to get a bed—simply to get a meal of bread and cheese and ale and then lie down under a hedge. I never contracted a cold, and I never had a cold in my life until I had been many years in London, and then, of course, London gave it to me. At the house in the East of London where I stayed last night they have got a tent, and I am just going to take a tent back with me. I know boys like a tent, and if they have not got one they will make one of twigs and branches. My boys do not have permission to go out at night, but it is not interdicted, and when I am quite sure that there is not going to be a regular soaker, I simply don't see them when they go down to the sea at night to one of the old boats, and I never heard of the privilege being abused. They have quite a delightful time. Get boys like that, let them have their fling in the open air. Of course, whether a man is going to be a naturalist or anything else a certain amount of "practical" teaching is absolutely necessary; but let it be the minimum of things that are unnecessary. We teach our children such a lot of things they can get from a good encyclopædia, but don't inflict the Britannica on them. Such a book, now, as Chambers' Encyclopædia is always within reach of our children in the school library, and they carefully go to it whenever they want

it. We don't trouble about teaching them a great deal of things to remember. Many they will forget by and bye; and many things they really do not want, and never will want at all; and we have agreed that that kind of thing is absurd. But other things are equally absurd. I mean, for instance, in so far as you teach a boy arithmetic and you do not make him reason out the process. Well, there are lots of things in life that we teach our children that are no good, so I simply went and asked the parents, "Do you want him to go in for an examination? No? Then the boy shall have a regular good time, because our work is done like this—that all the real things, all the things that matter, all the things that make a man of him, that give him the keen eye and the thoughtful mind, that make him alive to the beauty and wonder of the world, that make him humble in his judgments, that make him alive to the Nature he sees—this work, I say, is done as largely as possible in the open air, and the English boy and girl, for we have both in our school, love to have it so."

Mr. Lowerison had also some very suggestive remarks to make with regard to school museums, pointing out the wisdom of arranging them on an evolutionary plan, so that a child who knows his little school museum, has the master-key in his hand for unlocking all our municipal and national treasure houses.

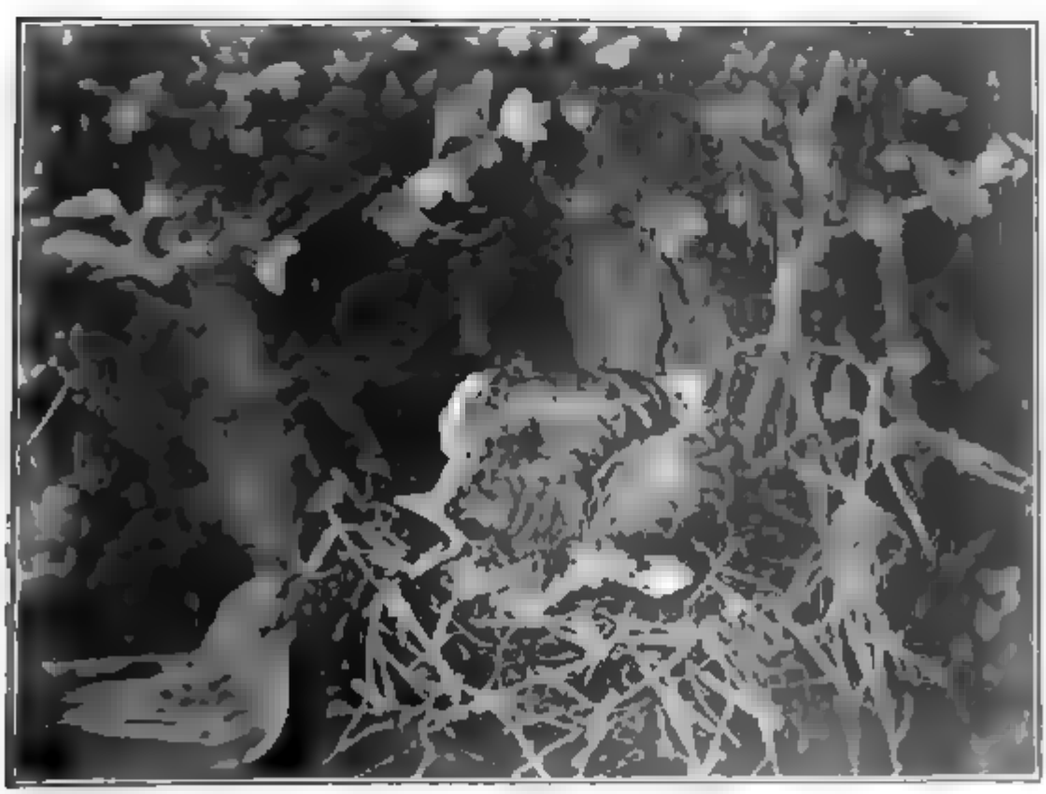
(ii.) *PRACTICAL METHODS OF NATURE-STUDY IN ELEMENTARY SCHOOLS.*

The second Conference dealt with elementary schools, and Mr. Jesse Collings, M.P., who presided, gave an address in which he referred to the Bill which he has before Parliament for promoting agricultural education and nature-study in public elementary schools. He said: I am happy to have the honour this afternoon of presiding over a meeting of elementary teachers, because with them so much rests, and I come as one much interested in this question, rather as a listener and a learner—listening and learning from what the elementary teachers have to say on the best methods of nature-study in elementary schools. I think I must first of all congratulate the promoters of nature-study on the success which the movement has already attained. Those of us who will go back a few years can mark the progress which the question has made. Naturally now we are not discussing the question of nature-study, but the best methods of carrying it on. Now, having been brought up in the country with close relations to country life, I have always

felt the importance of this question, and, about ten years ago, I brought into Parliament a Bill to guide teaching in our rural schools in the direction which we are now discussing. Of course, it was called an Agricultural Education Bill. That did not exactly represent its meaning; but the words nature-study have practically been imported since then, and in the Bill, which I reintroduced last session, I have made that addition which really explains what it means—a Bill for promoting agricultural education and nature-study in elementary schools. I do not know whether the ladies and gentlemen are acquainted with the provisions of that Bill. It is to provide object museums (if we may so call them)—collections of objects—(*museums* is a very ambitious term) for the teacher of agricultural and horticultural subjects, and to give facilities for nature-study, and, generally, by means of object lessons, to cultivate habits of observation and inquiry on the part of the pupils. To this end the Bill provides for school gardens and such collections of examples and objects as may be necessary for the practical illustrations and application of the instruction given. Now, at first sight this might seem to be a merely economic measure in providing for agriculture, while nature-study is not mainly economy; but the two combined will have great advantages from the economic as well as the social and other points of view. Now, I am aware, since the day when the first Bill was introduced, there have been great alterations made in the Code and also greater freedom is given to managers and teachers as to what shall be taught, but that is not enough. We must not rest until the question we are advocating and the kind of teaching we desire shall be placed, not in any minor or secondary position, but in the first rank, and I am inclined to think that Sir William Anson is a man very largely inclined that way, as he is not a great believer, at any rate not so great a believer, as many who have gone before, in mere bookish instruction; and I think there might be some improvement in the Education Department in the matter of inspection. Our inspectors are a very able body of men, and I have not a word to say against them, but they are literary men mainly, and what I should like to see would be a new element introduced into the inspection of our schools; that is, men and women who have been practically acquainted with the children and the things taught to children. Be that as it may, we must not rest, I think, until the Department makes a point of placing nature-study in the first rank. We spend money enough on education in this country. We have plenty of money voted;

the fault is, in my opinion, that it is largely wasted, that it is unsuited to the people to whom it is given. Here, again, you cannot separate agricultural education for economic purposes from nature-study—they intertwine, as it were, and in England we are spending large sums in higher agricultural education, at least we think we are spending large sums, but I have visited the institutions in Canada, in France, in Germany and other places and we do not know how far we are behind other countries. We talk about helping these institutions. Why, the little kingdom of Wurtemburg, with about two millions of inhabitants, gives more towards this class of agricultural teaching per annum than our Government gives altogether, and they are far and away superior, for this simple reason—that their education is based on the principle of learning by doing, which is the only one that will repay outlay on education. But, laying aside these higher forms, it is absolutely necessary to begin at the bottom. You cannot begin to let children enter on nature-study without considering our rural ratepayers, that is, the ratepayers in our country places. They have a very great deal to complain of. They have to pay very heavily for the education in the localities and they will have to pay still more now. But what do the schools do as a rule? Do the schools prepare the children to remain in the country and follow country pursuits? On the whole, the education, with few exceptions, is calculated more than any other to give children a distaste for country life, a distaste that would never exist if the teaching was such as to make them understand country life and their surroundings. As it is, as soon as they can, they get away into towns or centres of industry, or railway stations, anywhere to get away from the country. I know that there are many influential hard-working managers of schools who are beginning to see this. I was staying with a friend in the West of England some time ago, a man who had spent large sums of money and a great deal of time on a school which he had founded and was the patron of, and he took me to see the literary attainments of the scholars, which were satisfactory—apparently satisfactory. I was enabled to see some of the little essays or stringing together of words, of which I question whether they knew the meaning; but when coming out of the school, I caught hold of one of the bigger scholars and said:—"My boy, can you tell me the name of that tree?" The boy had passed it several times a day during his life. I might as well have asked him the name of one of the stars. The fact is, the boy had never really seen the tree; he had never seen it with understanding. I looked at my friend and said:—"Wouldn't it be better for you to begin

THE LITTLE OWL.



A YOUNG CUCKOO FED BY A HEDGE-SPARROW.

PICTURES BY Mr. R. B. LODGE

(From "Pictures of Bird Life," by the courtesy of Messrs. Bousfield and Company).

A NIGHTINGALE, SITTING.

A SEDGE-WARBLER FEEDING ITS YOUNG.

PICTURES BY MR. R. B. LODGE

(From "Pictures of Bird Life," by the courtesy of Messrs. Bousfield and Company).

THE SEDGE-WARBLER AND ITS NEST

PICTURES BY Mr R B LODGE

(From "Pictures of Bird Life," by the courtesy of Messrs. Bousfield and Company)

PLATE XII.]

WHITE ORCHIDS

A PICTURE BY MR. HENRY STEVENS.

(From "The Windsor Magazine," by the courtesy of Messrs. Ward, Lock and Company).

to base your education on the things which the boys see, and bring from the known to the unknown and explain all about the tree, not only the tree but everything else around?" and he was very much struck with the ignorance of the boy. "No fault of the lad's," I said. "If you were to ask him about all these wonderful things by which he is surrounded—the earth and the air and the hedges—in everything you would find him as ignorant as he is about the name of this common tree. I would advise you to teach less of high literary matters and train his intelligence and his powers of observation by bringing before him things that are palpable to him." Well, what effect it had I do not know, but I am quite sure that that was an object-lesson to my friend the patron of the school.

A few years ago, I had some little plots of corn crops growing in my garden, and I had, from time to time, a number of children (from seven to twelve) watching it spring up and the ear as it developed out of its case and went on to the ripening. I was much struck with the intelligence, the spirit of inquiry, the opening of a new world, as it were, in the minds of those children, and I venture to say that, so far as cultivating powers of observation, so far as leading them on to inquiries went, they were learning more than when they were at school. It is in the child to be interested in these matters. I remember in my younger days teaching in a Sunday school with a row of boys. You may find them extremely dull when you talk about certain things—you would think that there was no mind in them; but the moment you mention a bird, a plant, some natural object and explain it, they become alive with interest in the subjects. If you could lay hold in the common school of this capacity, which God put into them, and lead it gently on and so fill the mind up with all the great things to which such teaching leads, you would protect those dull boys from after dangers and after difficulties in life which the common teaching in the school will not protect them from. Now, as I said, I want to hear about the methods. I am satisfied that nature-study, including agricultural education, is the best basis for teaching in our elementary schools. It is to teach them to enjoy all that they see around and to understand what they see. It does not follow because people have got eyes that they see everything. Many of us look at things every day without seeing them, and our present education is calculated more than anything else to cause this lack of observation or power. Suppose this boy I spoke to about the tree had been a poor blind child, and by some miracle his sight was restored, and I asked him the name of the

tree. Of course, he would not know, but the boy referred to was as blind through want of training. So if you will carry the idea through you will see that teaching in our elementary schools on objects of Nature is the best to develop observation; to create the spirit of inquiry; to lead the pupils to want to know the why and the wherefore. I do hope that such Associations as these will continue until we see such a basis adopted in our schools. In conclusion, I may say there are many grave social problems mixed up with this question which depend largely upon it for their solution. There is the depopulation of our country towns and villages. During the past 30 years, we have got rid of half of our rural population. Our young people are flying away from an occupation—the oldest, the most honourable and the most fascinating of all occupations—simply because they have never been led to understand and to become interested in it. I believe that the remedy for overcrowding, migration into towns, and, above all, the physical degeneration of our people which is taking place at such a rapid rate, is involved, more or less, in the work we have in hand. If this teaching and training were given in our rural schools and at the same time a career on the land offered to the rising generation in which these advantages could be used, we should find that the depopulation which has become a national calamity would gradually but effectively be stayed.

Paper by Miss Edith Alderton.

Miss Edith Alderton then proceeded to read the first paper:—

My school is three miles from a railway station. To locate it I may tell you that it is eight miles from Winchester. I came to this school over three years ago knowing very little of the country, country children and country life. I found there was a good deal to be done, though I find there is still more that wants doing. In most country schools it has been largely left to the teacher how much he stirs himself. His life is, at the best, lonely. He is shut off from many comforts of fellowship and progression. He must choose some hobby or he will grow indifferent.

Among all the newness of the work and its environment there was the—to me—new question of nature-study. What was nature-study? How was I to set about teaching it? All I could settle in my own mind, as to the nature of it, seemed to hover round the word botany, that being the only subject related to Nature that I had chanced, in ever so elementary a degree, to have studied. I would have been better even without

this fragment, for it stopped short at a list of names that conveyed nothing to me. We went for walks. They grew to be terrors to me. Is there any teacher here who has experienced such? I did not know what to say. I did not know what to do and it never struck me to look. At last these walks grew on my conscience. I felt them a waste of time, for they had degenerated into romps—hardly degenerated, in one way, because there was something good and healthy in letting the children downright enjoy themselves. The little ones would toddle along with me taking turns in holding my hands. The babies, of all, would get bandy chairs home and quite a triumphal party we looked on our return, the biggest bringing up the rear trailing back branches of dead wood for their mothers. But on the outside all this was play.

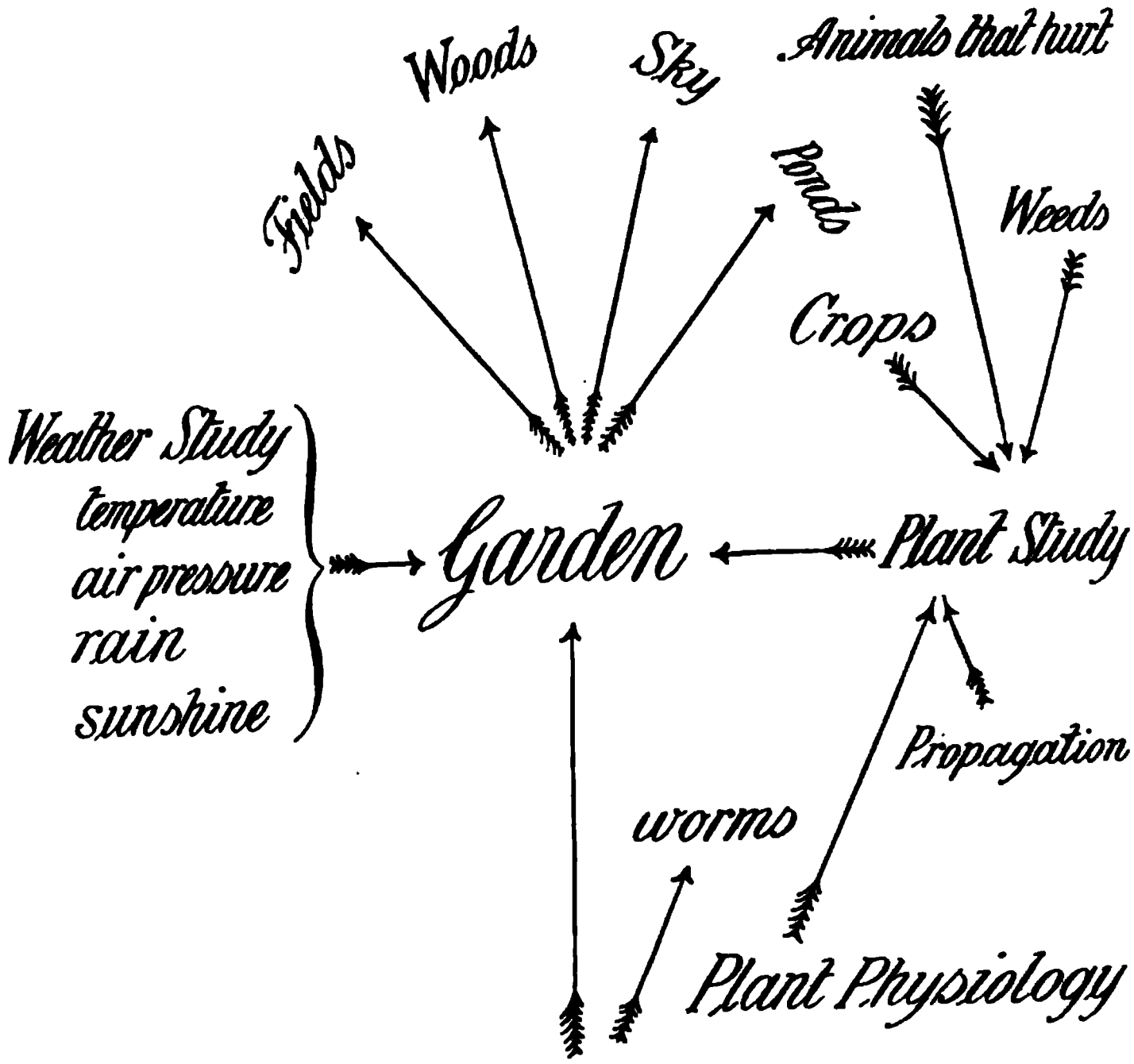
The Director of Education for our county (Mr. Cowan) organised, in August, 1901, a course for teachers in nature-study at the Farm School, Old Basing. The spirit with which the whole staff worked under the direction of Mr. Cowan, with Mr. Houston as special teacher in nature-study, was enough to put zeal into any student. The whole place buzzed. Add to it the great privilege, which none of us can forget, of being in the company of Mr. Rooper and his sister for the greater part of the two weeks. I found that, so far, I had been on quite the wrong lines in all my nature work and, indeed, with all my studies. It came like a revelation to me that I had been saying lessons all my life like a parrot and had never made them my own. I can't remember hearing one new fact, but only finding myself unlearning all that I had learnt before. After this, when I got back, the way was clear. I had quite convinced myself that I knew nothing, and set about to learn. The nature work became an all-round pleasure. There was so much to be seen—not at once but gradually, as the things unfolded themselves to me and to the children. It was quite together we did it all. They had the advantage, in the first place, in that they knew most, and I had the advantage afterwards in being able to help them by means of reference. Here I might remark that teachers have said to me—"Do you take nature-study in your school?" Then when I say "Yes," they say "What books do you use?" or, "You have so many books you can find out these things." Then, when I try to tell them that the whole spirit of nature-study is to find out something for oneself by simple observation and that the books, though important, are only secondary and to be used only as a grammar or dictionary in exploiting the literature of a new tongue, they say—"It takes so much time." The first thing we became interested in was

trees. For a whole year they kept us guessing. It was a new wonder each day how much was to be learned. The children felt the same. There was no difficulty now in finding something to say in the composition exercise. This alone makes me satisfied that nature-study is indispensable in the right training of little children. It was a terrible ordeal for some of them to write compositions. Now all fired away. The subject matter was their own. There lay the difference. Penholders ceased to be half eaten away. You could see by the satisfied way they went to work that they had got hold of something they could do and enjoyed doing it. For is not it the doing of something which we feel we cannot do that gives satisfaction? Ethel Dowding, a little girl of ten, said joyfully one day—"Governess, it gets easier every time." Each child, who could write and spell sufficiently, chose a tree and studied it. They each had an exercise book with a piece of pencil attached, and once during the day, in their own time generally, they made observations, and most alarming observations some were. It seemed to me that the trees were as well peopled as the world. It was—What is this? what is that? Sometimes merely a name sufficed to make an eager questioner contented. Here I tried to teach them to desire more because it reminded me so strongly of my own previous frugal state, of my own contentment with a string of words, and I would say to teachers, as I have said to myself ever since, "Be careful not to make the naming of things the end of the study, rather make it a mere convenience for reference—just as we call one child John to distinguish him from Henry." Not contented with bringing me all sorts of lichens from the bark of the trees, they needs must pull off some loose bark and bring me, to name little unknown animals from underneath. I was kept hunting them out and some still remain to be hunted out. You can hardly credit our delight when we found the lace-wing under the sycamore bark, and discovered some lady-birds snug in a dead beech cupule. Little by little our tree study worked itself into a definite shape. It became the centre life of so many other lives—even to the flowers which grew underneath it and to the animals which sought shelter beneath its boughs. So many problems presented themselves. It was sometimes like a game of riddles, and there was the satisfaction of swinging on the branches in thinking them out and to the more daring of climbing to the topmost branch and discovering more. All the while each child kept to its own tree, occasionally drawn off by the greater attractiveness of another's. The trees became personal. The big horse-chestnut, near the school, got to be called Charles Cordell's tree and the sycamore, right on the other side of the school, Ethel Dowdning's.

One afternoon everybody tried to draw their own tree; it was a great piece of business—we often talk of it and the boys sometimes say "When can we go out and draw trees again?" I always hesitate and get a mental picture of the strides I took that day. Some of the boys, with probably not the best of motives, had chosen a tree at a fair distance from the school. No tree was within talking distance of the other. I had a busy time walking from one flourishing artist to another. The leaves were carefully drawn in school and the branches showing the arrangement of the leaves. I know no better drawing lesson for a child than a simple leaf such as the privet or lime. It is simple enough for a little child to make an attempt at, and difficult enough to keep your best drawer on the alert. Only last week I gave some boys new to the work and some of my beginners a laurel leaf to draw. I left them in charge of a young teacher and went away to see to the needlework. When I could get to them again I found they had all finished and were reading magazines and looking at pictures—the reward when a drawing has been well done and the time for play not arrived. I said "How have they done it?" "With satisfaction?" "Very well!" I took the pile of books. No. 1. The drawing had a great likeness to a herring bone in a frame, with about twice the right number of veins; No. 2 was similar, but more complicated, and so on. They had simply used their own imagination. It was very sad for them when the drawing bocks were passed back and the whole thing had to be put right. The leaves were then taken up and well examined and very minor details were made prominent. As drawings, they are all useless; but, as a lesson in observation, I think they will prove of great value.

The third year I sought to be more definite, and tried, if possible, to make nature-study a basis, and, to a certain extent, was able to do so. I took the plant as a centre, being the most convenient. Round it was grouped everything which had to do with plant life. A life history of a plant was given. It was compared with their lives and the lives of animals as to such common needs as air, moisture, food and the demand for space to move and grow in. On all these things lessons were given—lessons which were included in the general list of object-lessons We made a thermometer, barometer and a rain gauge. To work up to this we took a few lessons in elementary science—lessons which were included in the general list of object-lessons, always striving to keep them simple as befitted nature-study. There were lessons in plant physiology, simple enough for the upper group (ten—14) each to set up and record six experiments. The

idea of plant emerged itself into the more definite work of the garden, and my scheme ran something in this way :—



I find a great deal of practical arithmetic can be worked into the scheme, and it certainly includes composition, spelling, writing, drawing and brushwork.

The boys in the first class have kept a diary of their garden work. This is scribbled down in the rough by them, and afterwards, as we get the time, put into form. The book—I have it here—gives some little idea of a year's work in the garden. I started a school garden soon after I began work at Stratton. This last year it has been very successful. I was fortunate in securing a good gardener, a man who really takes an interest in his work. At first he did not quite understand the lines upon which we were going. He could do the things so much easier himself. Take, for instance, a lesson on rose cuttings. He would do all the work while the boys stood round watching him, or, at least, while he made the first two or three cuttings—then they would be tripping one another up or throwing stray lumps of mould about. I passed him on a few pamphlets and books on nature study in connection with gardens, and gave him an

occasional hint. He always took the hints, and now he can get along nicely without them—even keeping all the boys and girls occupied and finding time to give them little plant phenomena to think about. The girls see entirely to the flower department. Nearly all our flowers were grown from seed, that was saved, brought up by them, and planted out. The special flower bed has been designed and carried out strictly in accordance with what a flower-bed should be. All through the year something has been *blooming*—great care and thought has been given to its arrangement and the grouping as to colour and size of the plants. When I *started* at Stratton, there was one old apple tree—I shall leave behind red, black and white currants, gooseberries, apple and *plum* trees, all reared by the boys from cuttings and grafts (some apple trees from pips). These gardening boys and girls have been *well taught* how to set to work. The joy with which they hail the gardener speaks for itself as to their appreciation, and that all the *vegetable* and flower garden is kept in good order by them, with, at the most, on the average, only two hours a week time spent, shows the way in which they employ it. If the weather is too bad for outdoor work, practical demonstration lessons are given by the gardener; sometimes theory lessons from me or the copying up of notes.

It was told to me only last week that nature-study was out of fashion now. "What do you mean?" I said. "Why they don't take it in school as much as they did; they find there isn't time for it—the inspectors don't like it."

Paper by Mr. E. A. Thomas.

The second contribution was made by Mr. E. A. Thomas, of Orlestone, Kent, and is printed below:—

During the short time allowed I will endeavour to briefly explain the methods of teaching nature-study that have been adopted in my small country school. I will say at the commencement that *I am self* taught—that is, I have had no other tutor than Nature herself, and I, therefore, realise and appreciate the many *difficulties* which beset those teachers who desire to take up the most charming and at the same time the healthiest study in *which they* can indulge. From a child I have always delighted in living pets, and I have even endeavoured to make others share *my pleasure*. When I came into the neighbourhood of my school, I was glad to find how admirably the district lent itself *to nature-study*. Ponds, woods, hedgerows and quarries were all within easy distance of the school, and I determined that *each should* have a fair share of investigation. Accordingly, I drew up a scheme adapted to the environment of the scholars

The scheme consisted of a course of experiments and observational lessons with easy drawings, with a view to train children in habits :—(*a*) of careful observation and reasoning ; (*b*) of making accurate and complete descriptions ; and (*c*) of acquiring knowledge for themselves ; as well as to make them (*d*) take an active interest in Nature, and (*e*) readily recognise plants, insects and birds injurious or useful to agriculturalists.

I feel convinced that no scheme is complete unless some of the animals and plants that are to be found in the neighbourhood, together with such simple natural laws that can be easily investigated, find a place in the nature-study curriculum of the school. Accordingly, my scheme was divided into three sections as follow:—

Lessons from Zoology—In this I endeavour to tell the children nothing, but to make them the minute observers and recorders of that knowledge which I desire them to acquire. Accordingly children are taken out on educational excursions to ponds and ditches at different seasons of the year. There the inhabitants are observed in their natural conditions, and specimens of newts, tadpoles, water scorpions, hydras, larvæ and pupæ of the dragon-fly and various other aquatic insects are brought home to be placed in the school aquarium, where their life histories and struggles for existence are observed and recorded in the children's nature-study diaries. It is as well to have besides the large aquarium a number of miniature supplementary aquaria in the form of jam jars, containing those specimens whose metamorphoses are particularly required to be recorded, because often in the larger aquarium they become devoured by their powerful and voracious foes. The aquarium may also be used to illustrate :—(1) air pressure, when emptied by a syphon ; (2) condensation, by putting a piece of ice into the water ; (3) refraction of light, by allowing the sunlight to fall directly through the aquarium ; (4) the effect of plant life on water. The children can also be led to note how admirably the inhabitants are adapted to their environments. Under this section are also included :—British reptiles, insect pests—life histories—methods of prevention and remedies, insect friends, birds as enemies to agriculture, birds useful to agriculture. These are all studied in lanes, fields and the garden, and other observations are made in school.

Associated with the school is a nature-study club, and the children are encouraged to bring living objects to school—birds excepted. The reptiles are deposited in a terrarium made as nearly like the natural surroundings of the inmates as possible. To teach kindness to animals should, of course, be one of the aims of keeping live pets, and to further this end it will be as well if the reptiles are only kept for a short time and then liberated (if harmless). The points of resemblance and dissimilarity between

snakes and the blind worms may be noted, their mode of drinking contrasted and their life histories and struggles for existence recorded. Empty chalk boxes, with sliding glass lids, make useful and inexpensive pieces of apparatus in which to rear caterpillars. The ravages done to trees by caterpillars of certain moths, such as the wood-leopard and goat moths, should be noted, and the children should be encouraged to destroy, without torturing, all insect pests; but, above all things, avoid having all insect life sacrificed for the mere sake of making a collection. Beetles may be kept in a vivarium, and useful carnivorous beetles may be observed attacking and devouring harmful caterpillars. Besides the mental discipline of observing, recording and classifying the knowledge acquired, the child gets an interest in the living objects and will readily converse on what he has seen, and is delighted to compose on a subject which has excited his curiosity and fired his enthusiasm. I strongly advocate the teaching of composition through the eye in preference to teaching it through the ear. We must, as teachers, ever bear in mind that the eye is the most important educational sense organ, and we must ever strive to train the children under our care in the habit of acquiring knowledge for themselves. How interested children also become if they are allowed to illustrate their composition with drawings or brushwork sketches.

The second section deals with :—

Lessons from Botany.—In this, we endeavour to teach only the fundamental principles, making great use, of course, of the cottage garden. The syllabus includes : Visits to a sandpit for the purpose of noting arrangements of layers of soil and subsoil; chemical effect on soil; atmospheric effect on rocks; germination of seeds in school —on flannel, in pots and over water. The third section deals with :—

Lessons from Physics.—The whole of this is experimental work. In connection with the school is an evening class, and the County Council have been very generous and have furnished us with plenty of useful apparatus. This, of course, is not allowed to get rusty during the day-time.

Paper by Miss J. Dodgeon.

The last paper was by Miss J. Dodgeon, L.L.A., of Burnley. In connection with this, she distributed a scheme which we reprint on pp. 214-15. Miss Dodgeon has studied German methods on the spot a good deal, and had something to say about them. It will be noticed that she has adopted the term "nature-knowledge" in the scheme for indoor work, as suggested by the present writer,* in contradiction to "nature-study," pursued out of doors.

* "The Record of Technical and Secondary Education," October, 1902, p. 25.

OUTLINE SCHEME OF COURSES IN NATURE-KNOWLEDGE, CORRELATED WITH
BY MISS J. DODGEON, L.L.A., RED

	NATURE-KNOWLEDGE WORK TO BE DONE ENTIRELY			
	Weather.	Plant Life.	Animal Life.	The Minerals of the neighbourhood.
1st Year.	Careful training in habits of accurate observation. Daily record of the weather to be kept.	The trees, shrubs and herbs we can see daily.	Our pets and domestic animals.	The stones we find on the roadside and by the water-side.
2nd and 3rd Years.	Simple inferences drawn from the weather observations that are made in nature-study time.	Nature's forethought: 1. Changes seen in the gardens and in the country, month by month. 2. Flowering plants. Lessons on— (*a*) Seeds (Autumn). (*b*) Roots (Winter). (*c*) Buds and seedlings (Spring). (*d*) Leaves, flowers and tiny buds (Summer).	1. The wild animals and game of the neighbourhood. 2. Wild animals belonging to the same orders as our domestic animals. 3. *The taming of animals.	The build an the stone of th neighbouring hill Sand-maps a relief-maps to made.
4th and 5th Years.	Daily weather observations to be continued. Evaporation and condensation.	1. Garden flower calendars. 2. Wild flower calendars. 3. The trees of the neighbourhood. 4. The struggle for life. 5. Plant mimicry. 6. Phanerogams—study of "types."	1. The struggle for life. 2. How the habits, and afterwards, the bodies of animals are modified by the exigencies of their lives. 3. Coloration of animals. 4. Insect mimicry. 5. Begin study of "types."	The useful mine found in the nei bourhood and h they are conne with the work the people.
6th and 7th Years.	Notes of lessons on clouds, rain, hail, snow, fog, dew and wind, to be ready at the beginning of the school-year. Whenever any special phase of the weather calls for general attention, the appropriate lesson to be given then.	1. Life histories of certain plants of the neighbourhood. 2. Classification of the known plants of the neighbourhood. 3. Cryptogams. "Types." 4. Practical work with the microscope. 5. Plant physiology.	1. Birds that stop with us in winter. 2. Migration. 3. Bird calendars. 4. Hibernation. 5. The fish of our streams. 6. Insect pests and *animal friends, *e.g.*, tadpole and toad. 7. The work of earthworms. 8. "Types."	1. The surface r and soils of neighbourh 2. How the life and a life are cou with them how they fluence, di or indirectl occupation the home the inhabit

* See "Nature-St

N.B.—In this scheme an effort has been made to interest the children in the healthy, hap
Children can be taught to observe a plant or flower without destroying it, to watch a
Dissection of a plant is not so instructive to a child as a knowledge of the plant's uses to
The life histories of plants and animals are most fascinating to children, and can be
It is intended that the nature-knowledge lessons of this scheme be correlated with so
of the curriculum.

NATURE-STUDY, FOR SEVEN SCHOOL-YEARS. (COMMENCING AGE, SIX TO SEVEN.)
LION STREET GIRLS' SCHOOL, BURNLEY.

I SCHOOL TIME.		NATURE-STUDY, SUGGESTED, DIRECTED AND ENCOURAGED IN SCHOOL, BUT DONE IN THE CHILDREN'S LEISURE TIME.		
Science useful in the home life.	School Excursions.	For all Classes.	The Teacher suggests as follows:—	
The animals and plants from which we get our daily food and clothes.	To the parks and fields which are within a mile from school to observe the plant life.	Daily weather observations to be made by the children when coming to school, and when in the playground. Each class might keep a weather diary. Notice, specially, sunrise and sunset each day, also the sun's apparent journey. Notice clouds, their shapes, colours and movements, as an introduction to meteorology. Notice how the shadows of buildings fall. Observe one shadow specially, and keep a record of its lengths. For example, measure it on certain fixed days in the week, and at certain fixed times in the day. Keep the record for one year, if possible.	1. Observe the changes seen in the garden and in the country, week by week, and keep a nature diary in which to note anything striking or interesting. 2. Make calendars of garden flowers, wild flowers and birds. 3. Watch the trees near your house. Record their changes. 4. Grow some plant from seed, and record what you notice day by day. 5. Keep a "Picture Diary," *i.e.*, paint or sketch the flowers and plants found week by week.	Write stories about your pets or about any animals you have specially noticed. Suppose you notice spiders, bees, butterflies, worms, as well as larger animals. Do not disturb any animal if you wish to really know how it lives, simply watch it and be sure not to annoy it. Notice the intelligence of animals, and their affection for those who understand them. Notice the kinship of all things in Nature.
Simple experiments to show the properties of solids, liquids and gases, and the connection between these three states of matter.	To the nearest highlands to see the relative situations of well-known places. Trace the chief roads and streams of the neighbourhood.			
Simple experiments to show the composition of air and water, and the properties of their gases. Impurities of air and water. How they may be detected.	To the parks for help in making the flower calendars, and to the woods to observe the trees of the neighbourhood.			
Ventilation. Filtration. Diet. Suitable clothing. Good sites and aspects for houses. Removal of waste.	1. To bank of a stream. 2. To a place where a house is being built. 3. To a reservoir. 4. To a quarry. 5. To the neighbourhood of a coal pit.			

by Professor Hodge.
and animals.
disturbing or annoying it.
minute structure so interesting to him as the story of the plant's struggle for life against its many enemies.
is of excellent mental and moral education.
recitation, composition, geography and handwork lessons—nature-knowledge being one of the "cores"

(*d*) THE LECTURES AND DEMONSTRATIONS.

On the opening day and on that day succeeding it, Mr. F. Martin Duncan gave a demonstration with the Urban-Duncan Micro-bioscope. There is no doubt that in nature-study continued observations are of the greatest importance, and that photography is a valuable means of recording them. Until lately, however, it was only possible to make a series of pictures of animals and plants as they appeared at intervals; but Mr. Martin Duncan has applied the principle of the cinematograph to natural history, and has even gone so far as to produce films which show the movements of living creatures under the microscope. At the Exhibition he showed the movements of cheese mites, of the fresh water hydra and of volvox, upon the screen, as well as the circulation of protoplasm in water weed. He also exhibited the actions of an octopus when moving and swimming, of bees working, of lobsters fighting and of toads, chameleons and snakes when feeding. As already mentioned, a series of lectures was given by those nature photographers and students who have done so much to encourage the hunting of our British birds with no more deadly weapons than the camera and field-glass.

Mr. J. Martin White (member of the Executive Committee) presided at the first evening lecture, and, before calling upon Mr. Richard Kearton to speak on "Wild Nature's Ways," had some words to say about the æsthetic and emotional aspects of nature-study.

Mr. Kearton then gave an excellent exposition of his methods and results, at the same time throwing upon the screen many new photographs of birds and insects. Some of these have since appeared in his latest book, which bears the title of his lecture. By the courtesy of his publishers, Messrs. Cassell and Company, we have been able to reproduce three of the pictures from the book in question (see Plates V. and VI. facing pp. 190-1), which will serve, better than any descriptive matter, to show what Mr. Kearton has been able to do.

On the third day, Mr. Oliver G. Pike lectured on "Pictures from Bird-Land," and the special features of his slides were those showing rare and beautiful nests. Examples of his work are to be seen in Plates VII. and VIII. facing pp. 190-1.

The last lecture of this nature was given by Mr. R. B. Lodge, under the title of "Some suburban Birds and Beasts." Again, we will not attempt to describe the photographs shown, inasmuch as, through the courtesy of Messrs. Bousfield and Company, we are able to reprint, in Plates IX.—XI. facing pp. 204-5, some of the

"CHINA AND JAPAN."

A PICTURE BY MR. HENRY STEVENS

(From "The Windsor Magazine," by the courtesy of Messrs. Ward, Lock and Company)

[PLATE XIII.

BANTAMS

A PICTURE BY MR HENRY STEVENS

(From "The Windsor Magazine," by the courtesy of Messrs. Ward, Lock and Company).

A HAPPY FAMILY

A PICTURE BY Mr HENRY STEVENS

(From "The Windsor Magazine," by the courtesy of Messrs. Ward, Lock and Company).

CATS AND RABBITS

A PICTURE BY Mr. HENRY STEVENS

(from "The Windsor Magazine," by the courtesy of Messrs Ward Lock and Company)

illustrations from Mr. Lodge's "Pictures of Bird Life" which has appeared recently.

Two societies were mainly responsible for the promotion of the Exhibition, and an evening was devoted to the interests of each. On November 3rd "The Middlesex Field Club and Nature-Study Society" met, and Mr. Henry Stevens gave a lantern demonstration of his celebrated photographs showing animals and plants under control, which served as an excellent companion to those dealing with wild life previously considered. By permission of Messrs. Ward, Lock and Company, we reproduce, in Plates XII.—XVI. facing pp. 205 and 216-17, some of the illustrations to an article in "The Windsor Magazine"* on Mr. Stevens' work. Afterwards, the present writer, as Honorary Secretary of the Society, showed a number of other Nature photographs by various students, as well as a series illustrating the nature-study work of schools throughout the country, particularly as represented at the Nature-Study Exhibition of 1902.

At the meeting of "The Selborne Society" on the following evening Mr. George Avenell (Chairman of Council) presided, and Professor Boulger spoke on the "Study of Living Plants," and Mr. E. A. Martin discussed the subject of "Open Spaces and Green Fields."

(*e*) GENERAL REMARKS.

The report of the judges† has not yet been published, so that it is not possible to give their opinions. The following paragraphs, giving some useful criticisms made by one who was not officially connected with the Exhibition, are quoted from an editorial in "The New Phytologist."‡ It should be pointed out that most of the commendations have been omitted.

"Nature-Study" has "caught on," there can be no question of that. It may be sneered at by the superior person as a fad, but in scores of schools throughout the country teachers are now busily engaged, each according to his or her lights, in trying to interest children in looking intelligently at natural objects, and in recording what they see in words and by pencil, brush or camera. That this is an enormous advance on the old state of things, in which Nature was either ignored or so-called science was taught to children more or less by rote from frequently inaccurate text-books, can hardly be doubted. At the same

* By Wilfred Mark Webb, F.L.S. (January, 1901).

† Miss M. L. Hodgson, formerly of the House of Education, Ambleside; Mr. Jonas Bradley, Stanbury School, Haworth; Dr. A. C. Haddon, F.R.S., University of Cambridge; Professor Minchin, M.A., University College, London; Dr. P. Chalmers Mitchell, M.A., Secretary of the Zoological Society.

‡ "The New Phytologist—A British Botanical Journal," edited by A. G. Tansley, M.A., F.L.S., Assistant Professor of Botany in University College, London. Volume 2, No. 9 (November 24th, 1903).

time, as in the case of every form of activity which has the force of a popular "movement" behind it, the very enthusiasm with which it is taken up leads some of its devotees into mistaken paths.

The recent exhibition at Burlington Gardens was most interesting to the teacher of botany, as illustrating both the excellent work that can be done along nature-study lines and the dangers which beset the enthusiastic teacher. . . . The first room was largely occupied by exhibits from primary schools. What can be done for quite tiny children in a London school by bringing natural objects to them was well illustrated by the exhibits from the Christ Church Endowed Infant School at Blackfriars. Various living animals, such as a snake, a rat, a tortoise, etc., kept by the children in cases made by the staff, charts recording weather, wind, sun, etc., kept by the children, were shown. Whether the so-called "co-relation schemes" in which a lesson on a natural object is illustrated by a picture, a story, a poem, etc., an attempt, we suppose, to bring all the child's faculties into play in relation to the object, is a wise method, when the illustrations must necessarily often be rather third-rate, and the connection not infrequently an artificial one, we leave the psychologist and the practical teacher of infants to discuss. In any case it hardly falls properly within the scope of nature-study. The wisdom of trying to acquaint London children with the life-history and use of a wheat-crop by a series of most unlifelike models representing a wheatfield in its various stages, a mill and a loaf of bread may certainly be doubted. But there can be no doubt that the work as a whole is praiseworthy and good. Sentimentality is a serious danger into which some teachers are clearly apt to fall. The photographs representing children in a school-garden, some of them working, perhaps, but one small girl unmistakably posing in a wheelbarrow, each photograph illustrated by a poetical quotation, irrelevant when it was not sentimental, were a particularly conspicuous instance. This kind of thing, if it has any effect at all, does children not good, but harm. . . . . At the same time, mere brushwork, however good, rather falls short of nature-study in the sense in which it is generally understood. . . . .

The necessity of not confounding nature-study with science teaching has been emphasised continually in this and previous papers; but, when the instruction given produces the results described in the next paragraph, the need for something less formal is self-evident.

Pen-and-ink sketches from nature of fruits and leaves, fleshy roots, etc., sent by another school illustrating lessons on these objects were very good, but against part of this exhibit we must emphatically protest. This consisted of sketches by children, twelve or 13 representing microscopic sections of an ovule, of a liverwort thallus and of a fern frond with sporangia. In the first place, there are such numbers of naked-eye objects, over which children of that age can more usefully spend their time, that it is entirely unnecessary, and probably undesirable, for them to do any microscopic work. In the second place, the sections from which these drawings were made were obviously bad sections, not illustrating the structure of the plants in question properly. And finally, such as they were, it is clear that they were not understood, for they were sprinkled with technical terms, largely wrongly applied; for instance, a scale on the ventral surface of the liverwort was called a "multi-cellular rhizoid," and two layers of cells on the surface of the fern frond were called respectively "corky cells" and "palisade layer," while the structure of the ovule was completely misunderstood, not a single name being correctly applied. And yet to these sketches a

"first-class certificate and prize" were given, presumably by the school authorities!* Clearly a rough tongued inspector is wanted here.

Two other departures from legitimate nature-study may be mentioned. First, some very finished water-colour drawings of a cultivated chrysanthemum, a pelargonium and a calceolaria, excellent, perhaps, as artistic products, but scarcely in place in this exhibition; and, secondly, some collections of dried grasses on cardboard without any names or descriptions—things of little or no educational value, and including, by the way, plants which are not grasses. There were also a good many other collections of flowers with names attached, English and Latin, sometimes wrongly spelt, reminding one more of the "floral albums" of the middle of last century than of modern nature-study. . . . .

With regard to the general organisation of the Exhibition, it would have been more satisfactory if it had been found possible for the prizes to be awarded, and the prize-winning exhibits marked, *before* the Exhibition was open to the public, but we suppose this was hardly possible. We were sorry to see that the name of no recognised botanist appeared in the list of judges. This is particularly to be regretted since so large a proportion of the exhibits dealt with plants.

The promoters of the Exhibition are to be warmly congratulated on its success, and on the stimulus it must have afforded to this most fascinating and important branch of modern education.

In connection with the strictures passed above upon some of the supposedly realistic models, it might be said of others, intended to interest or instruct small children in seaside and other matters, that, if they have any educational value at all, it is not in connection with nature-study in which things themselves are chosen for observation. The two points raised with regard to the organisation of the Exhibition may be commented upon by the way. The advantages that would have been gained by making the awards, before the public were admitted to see the exhibits, were felt in connection with the Exhibition of 1902, and the Committee of the second undertaking would have much liked to profit by this experience. The Civil Service Commissioners, who kindly lent their offices, did as a matter of fact postpone one meeting for the benefit of the Exhibition; but, as only a certain time between two fixtures was available, the Exhibition had to be opened without delay. An attempt was made to induce several botanists to act as judges, but it was unsuccessful. One very well-known man refused to act because he was not in sympathy with the movement; indeed, he suggested that, if nature-study were encouraged, all our plants and animals would be destroyed through the making of collections by children. It cannot be needful at this stage to point out the fallacy of the idea. Some scientific teachers have failed to recognise the proper aims and values of nature-study,

* Not by the judges at the Exhibition.—[W.M.W.]

and the celebrated botanist in question should not have condemned an advance in educational method because of a few mistaken efforts. He could have seen, from the scheme of the Exhibition, what a small part collections had been made to play, and he might have imagined how far a proper appreciation of plants and animals will go to protect them from destruction. By becoming a judge he could also have made himself heard upon the matter.

(4) THE PUBLIC SCHOOLS AND NATURE-STUDY.

It is pleasing to be able to chronicle that nature-study has recently been introduced into our foremost public school, and Eton College is setting the example not only to her *confrères* but also to a host of preparatory schools which might not be easily reached in any other way. To the book* written to provide the observational lessons in school for which our present system calls, and to suggest directions for nature-study out of doors, in the school and at home, the Head-master, Dr. Warre, has contributed the following foreword :—

It is with great pleasure that I venture to commend this little work both to teachers and learners. I believe that it is sound in its method, and that it will not only help to train the minds of those who use it intelligently, but also lead the way to that further study of Nature upon right principles which, as time goes on, affords for so many a solace and delight amid the 'sick hurry' and pressure of modern life. Any business man who takes a pleasure in his herbaceous garden, or in shrubs and trees, or in his farm, will know what this means. Of all kinds of study, the study of nature pre-eminently deserves the encomium of Horace, "Omne tulit punctum qui miscuit utile dulci."

Moreover, one of three important papers read at the annual meeting of the Association of Public School Science School-masters, on January 16th, 1904, was on nature-study, and was written by Mr. Oswald H. Latter, of Charterhouse. The following summary of it is quoted from "Nature"† :—

He characterised the scope of nature-study as being very wide and mentioned a host of sciences which, strictly speaking, took cognisance of the material made use of. In fact, he said that nature-study included nearly all visible phenomena. Its object, he continued, is to train the eye to see appreciatively, to awaken interest and to foster certain valuable habits. The matter must be determined by the season of the year and the situation of the school, and an orderly sequence of lessons is not essential. Mr. Latter pointed

*"Eton Nature-Study and Observational Lessons," by Matthew Davenport Hill and Wilfred Mark Webb. Part I., Duckworth and Company, 1903. Price 3s. 6d.

† "Recent Conferences of Science Teachers," by Wilfred Mark Webb, "Nature," Vol. 69 (January 21st, 1904), pp. 282-284.

out how useful the knowledge obtained may be made when English composition is being undertaken. The boy, in ordinary cases, is gravelled for lack of matter, *but*, when he has observed for himself, he is able to put down what he has learned in a way that is interesting and shows individuality. Though he made no attack upon physics and chemistry, which had their own and necessary uses in education, Mr. Latter said that, in many respects, nature-study is superior to them, especially for young children and the training which it affords is different *in kind*. The habits acquired are of value in all walks of life, but they would be especially so in a military service, and Mr. Latter much regretted that what he terms "Field Subjects" were entirely absent from army examinations. Nature-study, in Mr. Latter's opinion, has come to stay, and will, before long, take a regular place in the early stages of our education. One of the greatest faults of our school system is that the desire for knowledge on the part of the child—who is by nature both inquisitive and observant—is killed outright in most cases by the time that the age of 17 is reached. It was suggested that nature-study might profitably be employed in the two or three lowest Forms of our public schools, but, as it is of specially great importance in preparatory schools, Mr. Latter thought that the Association should approach the preparatory school-masters with a view to obtaining some uniformity of action on their part. The matter is particularly urgent, as a combined examination for entrance to a number of public schools is likely to be devised in the future. In conclusion, Mr. Latter was of opinion that nature-study might with advantage be extended to advanced biological work of the school and university laboratories.

It seemed difficult, in the discussion which followed, for the science masters to realise that nature-study is not science teaching but a part of general education. Professor Armstrong made matters worse, though he agreed with Mr. Latter's arguments, by saying that he had given a wrong title to his paper and by mentioning an attitude of want of confidence towards modern scientific education. Some of Professor Armstrong's further remarks were still more misleading and calculated to do a great harm to the movement in this country in favour of nature-study. He said that this phrase was merely a war-cry at present and used by one party in an absolutely unscientific sense. The present writer was at some pains to find out from Professor Armstrong, after the discussion, to whom he had referred, and it must be said that he had entirely failed to grasp their meaning. Those in question would absolutely agree with Professor Armstrong that the work under the name of nature-study should be scientific in its method, and that it would be a very bad day's work to establish anything but a foundation for exact work in the preparatory school. The only points in which they would apparently differ from him are (1) nature-study should not deal with the logical connections and sequences to be found in science proper; (2) that opportunities for the pursuit should be afforded to all children, if possible out of doors, and not merely to those who are to be taught "science," in whose case nature-study should precede their more systematic training.

(5) WORK IN THE FUTURE.

We may very briefly summarise, under convenient headings, the work that must be done to promote nature-study in the future.

(*a*) TO HELP EXISTING TEACHERS.

(i.) By holding Exhibitions on more and more restricted lines in which the special meaning and intentions of nature-study are made clear.—This will no doubt be done, at not too frequent intervals, by the Nature-Study Society, and it would be advisable afterwards to show a representative selection of exhibits at a number of local centres.

(ii.) By arranging Conferences at which Teachers who have recognised what nature-study is should describe their work.—It has been customary to organise conferences in connection with exhibitions, and this is likely to be done in the future. The School Nature-Study Union has already carried out some excellent work in this direction. County Education Committees may well follow the example set in the past by some of the more thoughtful of the Technical Instruction Committees.

(iii.) By giving direct help to individual Schools and Teachers.—The programme of the Union, to which allusion has just been made, shows, among its objects, that of giving useful advice and of offering suggestions and specimens to schools and to teachers who have a difficulty in introducing nature-study. The periodic exhibitions will give the Union an opportunity of seeing the results of its work.

(iv.) By providing literature of special use in nature-study, both to Teachers and to Pupils.—For some years the Agricultural Education Committee has successfully circulated Nature-Knowledge Leaflets, and it seems that the time has now come to develop this branch of the work. The interest which some well-known educationalists take in the movement has led them to endeavour to provide the means for starting a journal which will afford the necessary help to teachers and scholars as well as to promote the nature-study movement and the educational science teaching which should, in many cases, follow it.

(*b*) TO TRAIN FUTURE TEACHERS.

The supply of teachers is, of necessity, the most important matter in connection with nature-study, but one reason why it should have been kept somewhat in the background in the past is that it was of little avail to attempt to train teachers specially

until some definite ideas existed as to what nature-study is. The Agricultural Education Committee obtained recognition for nature-study at the Government training colleges, and it is hoped that in these institutions, as well as in County Council courses, much progress will be made.

We would, however, point to the real nature-study work that has been done by the Froebel Educational Institute, the Cambridge Training College and similar institutions, and would urge that in their footsteps other bodies that are responsible in the matter may follow with advantage.

WILFRED MARK WEBB.

IV.—THE VISIT OF THE MOSELY EDUCATIONAL COMMISSION TO THE UNITED STATES.*

A COMPENDIUM OF EXPERIENCE AND OPINION.

Introduction.

Of the many committees of inquiry which have crossed the Atlantic during recent years to study the systems and methods of education pursued in the United States, none, perhaps, have attracted more widespread attention than the Commission of educational experts despatched by Mr. Alfred Mosely, C.M.G., of Ely Place, London, E.C., in October-December, 1903. Not only has Mr. Mosely shown much public spirit in bearing personally all the heavy initial expenses of the Commission but he has placed the results of the practical studies of his Commissioners at the free disposal of all who would be specially interested in them. The visit, too, has been arranged at a time when great and radical changes are taking place in our educational affairs in Great Britain, and thus unique opportunities are given for putting into speedy operation any of the experiments or of adopting any of the general practices found to be salutary in connection with the organisation and administration of American education, so far as may seem compatible with our different conditions.

The following full list of the names of the members of the Commission is of itself sufficient indication of the comprehensiveness of the inquiry *in toto*, although it is possible that the necessarily swift passage of the Commission from place to place may have somewhat hindered systematic investigation :—

Arthur Anderton, Esq., J.P., Alderman and Chairman of the Education Committee of the West Riding County Council. (Nominated by the County Councils Association.)

Henry E. Armstrong, Esq., Ph.D., LL.D., F.R.S., N.P.C.S., Professor of Chemistry in the City and Guilds of London Central Institute.

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EDUCATIONAL ORGANISATION IN AMERICA (A BOYS' WOOD-CARVING CLASS IN A PUBLIC SCHOOL). (*See page* 229.)

W. E. Ayrton, Esq., F.R.S., Professor of Physics in the City and Guilds of London Central Institute, Past President of the Institution of Electrical Engineers.

Thomas Barclay, Esq., LL.B., Ph.D., late President of the Paris Chamber of Commerce.

A. W. Black, Esq., J.P., Mayor of Nottingham, Chairman of the Nottingham Education Committee.

R. Blair, Esq., M.A., B.Sc., Assistant Secretary for Technical Instruction of the Department of Agriculture and Technical Instruction of Ireland. (Nominated by the Department of Agriculture and Technical Instruction of Ireland.)

J. Rose Bradford, Esq., M.D., D.Sc., F.R.C.P., F.R.S., Professor of Medicine, University College, London.

G. J. Cockburn, Esq., late Chairman of Leeds School Board.

The Bishop of Coventry, late Chairman of the Birmingham School Board.

H. Coward, Esq., late President of the National Union of Teachers. (Nominated by the National Union of Teachers.)

Rev. Prof. Finlay, S.J., F.R.U.I., Member of the Intermediate Education Board and the Technical Education Board, Ireland; Professor of Political Economy, University College, Dublin. (Nominated as official representative of the Board of Agriculture and Technical Instruction of Ireland.)

T. Gregory Foster, Esq., B.A., Ph.D., Assistant Professor of English in University College, London, and Secretary to the College.

W. C. Fletcher, Esq., M.A., late Fellow of St. John's College, Cambridge, late Head-Master of the Liverpool Institute, Liverpool (now Chief Inspector of Secondary Schools under the Board of Education).

W. H. Gaskell, Esq., LL.D., M.D., F.R.S., Fellow of Trinity Hall, Cambridge, University Lecturer in Physiology.

Rev. H. B. Gray, D.D. (Oxford), Warden of Bradfield College.

W. P. Groser, Esq., of the Inner Temple. (Representing the Parliamentary Industry Committee, and to inquire into legal education.)

C. J. Hamilton, Esq., B.A. (Camb.), F.S.S., Lecturer on Political Economy, University College, Cardiff, Secretary to the Commission.

Alderman J. R. Heape, Vice-Chairman of the Rochdale Education Committee, Chairman of the Rochdale Technical School.

Rev. A. W. Jephson, M.A., late Member of the London School Board.

Wm. Jones, Esq., M.P. for Arfon Division of Carnarvon. (Representing the Parliamentary Industry Committee.)

Magnus Maclean, Esq., M.A., D.Sc., F.R.S.E., Professor of Electrical Engineering in the Glasgow and West of Scotland Technical College, Glasgow. (Nominated official representative by (1) the Glasgow and West of Scotland Technical College; (2) the Edinburgh School Board; (3) the Technical and Secondary Education Committee of the Ayrshire County Council.)

Rev. T. L. Papillon, M.A., Vicar of Writtle, Essex, late Fellow and Tutor of New College, Oxford, formerly Fellow of Merton College.

Herbert R. Rathbone, Esq., B.A., Barrister-at-Law, Member of the Education Committee and Deputy Chairman of the Committee on Elementary Education, Liverpool.

H. R. Reichel, Esq., LL.D., late Fellow of All Souls College, Oxford, Principal of University College of North Wales, Bangor, and Member of the Welsh Intermediate Education Board. (Nominated as official representative of the University Colleges of Cardiff, Aberystwyth and Bangor.)

John Rhys, Esq., M.A., D.Litt. Hon., LL.D. (Edinburgh), Professor of Celtic and Principal of Jesus College, Oxford; Fellow of the British Academy.

Sir Albert Kaye Rollit, M.P.

W. Ripper, Esq., M.I.C.E., Professor of Engineering in University College, Sheffield, Member of the Sheffield Education Committee.

Charles Rowley, Esq., M.A., J.P., Member of the Manchester Education Committee and of the Manchester School of Technology, Chairman of the Manchester School of Art.

A. J. Shepheard, Esq., Chairman of the late Technical Education Board of the London County Council.

A. E. Spender, Esq., B.A., Barrister-at-Law, Director of Plymouth Girls' High School, Member of Plymouth Chamber of Commerce Executive, and Member of the Committee of the Mount Edgcumbe Industrial Training Ship.

John Whitburn, Esq., Member of the Education Committee of Newcastle-on-Tyne.

All the members of the Commission have contributed formal reports of their experiences and conclusions, with the exception of Sir Albert Kaye Rollit, M.P., the Bishop of Coventry and Messrs. Wm. Jones, M.P., G. J. Cockburn and C. J. Hamilton (the Secretary). The 26 reports together form a document of 400 pages, which can be obtained by the general public from the Co-operative Printing Society, Tudor Street, London, E.C., for 1s. (post free 1s. 4d.). But any Education Authority in the British Isles (or a member of the same), County Councillor, local

manager, head-master or mistress, or registered teacher may obtain copies *free* by forwarding to the publishers the cost of postage and stating qualifications.

It is impossible in this article to review separately the 26 reports, and, indeed, unnecessary, as many of them discuss the same questions and very often arrive at similar conclusions. The most important portions of each Commissioner's report which deal with the same questions are, therefore, reviewed under the respective educational headings. As stated in the Editorial Notes, it is considered that by this means a recognition of the real value of the reports as a whole will be facilitated. The joint report, signed by all the 26 Commissioners, is, however, reproduced *almost in extenso* on pp. 232-3. The chief points in the introduction and preface to the reports, which are written by Mr. Mosely himself, will be of particular interest, and to him we are indebted for the loan of the plan and blocks on pp. 225-6, 231, 249-50, illustrating the work of different American educational institutions.

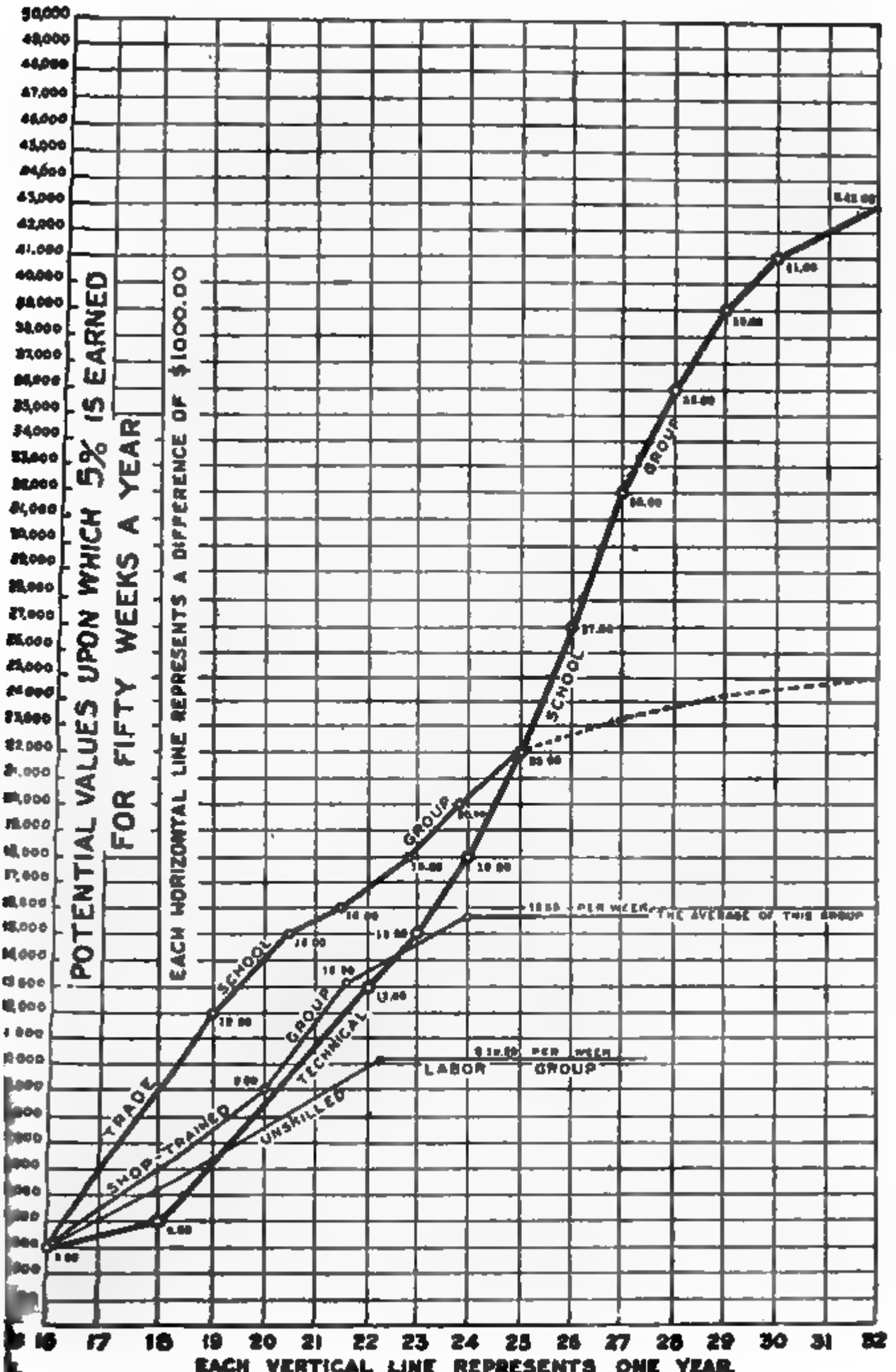
Mr. Mosely's Introduction and Preface.

After suitable acknowledgments of advice received in settling the details of the Commission, which Mr. Mosely thinks should largely help to enlighten public opinion in regard to points upon which it needs enlightenment, he notes with particular satisfaction the decision of the Commissioners to absolutely exclude in their reports all references to politics and to the religious controversy in connection with education. Mr. Mosely briefly reviews the circumstances which led him to organise his two Commissions. The first of these—an Industrial Commission of 23 delegates—visited America in the fall of 1902 for the purpose of giving workmen, through their Trades Unions, an opportunity of seeing what is being done on the other side of the Atlantic. The subjects placed for investigation before the Education Commission were:—(1) the development of individuality in the primary schools; (2) the social and intellectual effects of the wide distribution of secondary education; (3) the effect of specific instruction given in (*a*) business methods, (*b*) applied science; (4) the present state of opinion as to the value of professional and technical instruction of university rank, designed with special reference to the tasks of business life.

The whole tour was splendidly planned for Mr. Mosely by President Murray Butler, Columbia University. Really royal receptions were given in every city, starting from New York, representative committees being organised to conduct and advise the delegates, some of whom went as far West as California and others into Canada.

Mr. Mosely records some of his personal impressions derived from the visit. There are certain well-established facts of the highest importance associated with American education. The intense belief in the education of the masses is one, for it is considered far more economical to educate the people than to support the uneducated unfortunates inhabitating prisons and workhouses; and in this belief is safety and salvation. The Commissioners reiterate the same fact in their reports.

Again, money spent on education is held to be a splendid investment from a business point of view—hence the large sums devoted to the building, equipment, endowment and maintenance of schools, upon which practice some of the Commissioners give evidence (see pp. 233, 234). In this connection, Mr. Mosely quotes from Mr. James M. Dodge, of the American Society of Mechanical Engineers, on the subject of "The Money Value of Technical Training," who illustrates in a striking way the practical aims and utility of the methods of education in America. The actual progress made by four groups of men working in the mechanic arts is outlined—the unskilled labour group, the shop-trained or apprentices group, the trade school group and the technical school group—and average results are given in a graphic form by the diagram which is reproduced on p. 231. The curves scarcely need explanation: each shows the average progress in earning capacity of the groups to which it refers. It will be seen that for the unskilled labour group (though the data are lacking for its early progress) the maximum is lowest but is earliest reached. The apprentice, regarded as the representative of the shop-trained group, begins to earn three dols. a week at the age of 16 (three dols. a week for 50 weeks = 150 dols. = five per cent. on 3,000 dols., which is, therefore, taken as his "potential or invested" value); his wages, and, therefore, his value, rise rather more rapidly than those of the unskilled labourer, and his maximum is somewhat higher. The average member of the third group spends three years at a trade school, which he leaves at the age of 19 and gets a situation at twelve dols. a week—as much as is earned by the apprentice group at 21—and his earnings increase up to 22 dols. a week at the age of 25. Data are lacking to determine his further progress, but the presumption is that the rate of increase will slacken, and the curve will ultimately become parallel to that of the shop-trained man, though higher on the chart. The fourth class consists of those who stay at school till 18, and then study at one of the higher technical institutes till 22, when they begin practical work. At that age their average weekly value is 13 dols., or five dols. less than that of the trade school



THE MONEY VALUE OF TECHNICAL TRAINING.

group. But the difference is soon made up, and at the age of 25 the two groups stand level, but the curve of the technically trained men subsequently continues to rise rapidly long after that of the trade school group has (probably) become level.

As regards the internal organisation of American education, Mr. Mosely was struck with the enthusiasm of the teachers and the thirst for knowledge among pupils of all ages. The aim is to make every boy fit for some definite calling in life, and this is facilitated by the fact that they pass on to the secondary schools and colleges at little or no expense to their parents or themselves. There is great success, too, attained, both in the primary schools and in the colleges, in bringing out the individual qualities of the scholars and teaching them to reason. Specialisation is consequently recognised as an essential supplement to a general all-round education.

A few important comparisons of American with our own educational methods, as well as forcible criticisms of the former, are made by Mr. Mosely. School life in America is much longer (see also p. 234), but there is not such an absolute devotion to sports which of late years has crept into all classes of English schools. Again, a weighty distinction is found in the different types of leading men developed. In America everyone is confronted with alert, up-to-date, organising men with great business qualifications as well as academic learning, with whom it is inferred our own professors and heads of universities, etc., compare most unfavourably. Mr. Mosely discovered, however, certain weaknesses in American education. Of these, he noticed the large preponderance of women teachers in all branches of education and the smallness of the teachers' salaries, by which few men are attracted to the profession, as well as the neglect of musical talent amongst the school children.

Joint Report of the Commissioners.*

The undersigned members of the Mosely Educational Commission are deeply impressed by the evidence they have gathered in the United States of the absolute belief in the value of education both to the community at large and to agriculture, commerce, manufactures and the service of the State. Although in the past the belief in education has been the effect rather than the cause of American prosperity, during the last quarter of a century education has had a powerful and far-reaching influence; and it cannot be doubted that in the future it will become more and more

* This report is signed by all the 26 Commissioners, but Professor Ayrton does not agree with reference to the preponderance of women teachers, and Mr. Blair regards the subject as an open question.

the cause of industrial and commercial progress and of national well-being. They are satisfied that in years to come, in competing with American commerce, we shall be called upon to face trained men, gifted with both enterprise and knowledge. They desire to impress on the British public the absolute need of immediate preparation on our part to meet such competition.

They have also been impressed with the spirit which animates both teachers and pupils, and by the manner in which the two classes co-operate in the schools and colleges. Willingness, if not an overwhelming desire, to learn seems to characterise the scholars; and teachers seem to be possessed of but one wish—that of helping their pupils in every possible way. The absence of class prejudices and of any "religious difficulty" serves most materially to facilitate the work of the schools.

The closest connection is being established between theory and practice, the practical bent of the men of letters and science and the breadth of their outlook being very remarkable. The services of experts in various branches of knowledge are, therefore, held in high esteem and are in constant demand.

The important part which manual training is beginning to assume in the schools struck them very forcibly. Such work appears to be in many ways of high value as an educational discipline, especially in developing handiness and alertness and in familiarising the scholars with constructive processes.

They have been much impressed by the liberality displayed not only by the public but also by private donors on behalf of education, as evidenced by the wealth of provision in the form ot buildings and equipment which is everywhere made. On the other hand, they observe that the remuneration of teachers is by no means always placed on a satisfactory basis; and they have also been led to view somewhat with alarm the growing preponderance of women teachers.

Lastly, they would draw attention to the extent to which the work of education is organised and its various grades co-ordinated, whereby harmonious working is secured and overlapping avoided. The need of effecting such organisation in this country, which was before apparent, now seems to them imperative, in view of the experience they have gained in the United States.

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General Facts Respecting American Education.

Available to All.—A number of the Commissioners agree that the people of the United States recognise that national and individual success is founded upon a sound general education, which is absolutely free in the secondary, or high, as well as the elementary

schools. Mr. H. R. Rathbone adds that in a great many States there are also free universities, and even where they are not free the fees for instruction and the cost of living are so low as to make it possible for any student, however poor, to attend.

COMPULSORY ATTENDANCE.—Attendance at school is compulsory up to 14 years of age (there is no half-time system), when the high school is entered for a four years' course, which closes the free education provided by the State or the city. This statement as to compulsory attendance must be taken to refer to the majority of the States, for Mr. J. R. Heape gives the actual returns. These show that in eleven of the States the age for compulsory school attendance exceeds 14 years (in eight it is 16), in 18 it is fixed at that age, and in only one as low as 13; in 14 States there is no legislative enactment. Councillor J. Whitburn, who maintains with Mr. Mosely that the whole system of American education is based upon the idea of fitting the children for the performance of some useful work in their future life, recommends that the age for compulsory attendance at school in this country should be raised to 15 or 16 years.

THE COST.—Upon the question of the expenditure upon American education, Rev. T. A. Finlay says it is generous to the verge of extravagance. States and municipalities vote funds unstintingly, sometimes to as much as one-third of their revenue. Mr. H. R. Rathbone goes still farther in claiming that, in a number, more than half of the public expenditure is on education, and this with the apparent approval of the electors. Mr. Finlay further points out that religious bodies contribute to their own schools on the same scale, and private individuals bestow princely fortunes in endowing educational institutions. The high schools are proportionately costly, and the universities seem but to have to ask for money to get it.

ITS RELATION TO NATIONAL PROGRESS.—A number of the Commissioners explain unhesitatingly that education is not the main cause of America's growth and prosperity. Professor MacLean gives reasons for this—among others, that the present highly developed educational system is only of recent establishment; the large proportion of foreigners among leading men; and last, but not least, the unique economic conditions. Professor T. G. Foster puts it in a somewhat different way—that the commercial and industrial efficiency of the country has led to the widespread belief in education. Rev. H. B. Gray is, perhaps, more emphatic upon the point than any Commissioner. He asserts that education is *primarily* an effect and *not a cause* of the progress, but that the *effect* is every day becoming more and

more of a *cause*. Professor H. R. Reichel records the general opinion of teachers and industrial leaders that education is a powerful contributory cause of progress and the essential condition of its maintenance. Rev. T. L. Papillon's view of the question is that the American character is quite as much the cause as the result of educational development in the States. Rev. T. A. Finlay sums up the whole subject in the brief and striking words —the schools have not made the people what they are, but the people, being what they are, have made the schools. Mr. R. Blair maintains practically the same, but particularly in regard to the relation of technical education to industry and commerce. The school system, past and present, has not been a large determining factor in the success, but the future success is being directly and profoundly affected by the schools of to-day.

A Slow Process.—At least two of the Commissioners point out that America considers it impracticable to devise "short-cuts" to educational efficiency; rather is education held to be a slow process. Mr. Fletcher thinks nothing more remarkable than the leisureliness and absence of hurry in the American schools. For instance, the technical training of young men does not really begin until the ages of 22 or 23 years, up to which full-time is given to study pure and simple; but these are the men who eventually rise most rapidly. Professor Foster describes as "a signal triumph" the evidence in American colleges of the value of a course of study of fixed duration carefully graded and carefully watched at every turn. Mr. H. Coward was struck with the advantageous position of America to England in that its education is graded and co-ordinated from the kindergarten to the university.

The Commissioners express most valuable opinions upon those questions which more directly concern the general organisation and instruction of the schools.

The Schools and the Community.—A noteworthy fact is that the schools are used freely by all classes of the community. Mr. A. Anderton saw the sons of wealthy men, Presidents and Members of Congress, working in the same classes with the sons of coachmen, gardeners and labourers. No difference is observed in regard to these children; they mix freely in the classes and playgrounds. Professor H. E. Armstrong shows that the social outlook is greatly affected by the mere fact that all classes are brought together in the common schools. This is strikingly corroborated by the testimony of Mr. H. R. Rathbone, who was told that at conferences held at the schools parents from the smartest and richest and from

the lower grades of society discuss together their respective children on terms of perfect equality.

Large and commodious school buildings are a natural outlet for liberal expenditure on education. According to Mr. A. Anderton many schools in American cities are very large, sometimes accommodating 2,000 or 3,000 scholars or even more; and the plans are so carefully and accurately conceived that the schools are usually completed, with every detail, within the estimated cost. Professor H. E. Armstrong takes the view that English board schools compare not unfavourably with American schools, taking into account the areas concerned. But the crucial point is the difference in the attitude adopted in America towards public school buildings, which are regarded with pride and not with antipathy on account of the outlay involved.

THE VOLUNTARY ELEMENT.—Mr. A. J. Shepheard strongly criticises the practice in America of mainly organising education by paid officials as a business, which he describes as the "one great blot" in the school system of the States. He considers the practical exclusion of the voluntary element in education to be a great loss. There is certainly much cause to regard his plea that our new Education Authorities in England will find some method of throwing upon the voluntary worker not only a great deal of responsibility in the centre and in the settlement of principles but also in connection with the details of the various schools and institutions.

THE RESULTS OF SCHOOL TRAINING.—An important factor of the training given in American schools is that the children are made to think for themselves. They are encouraged to give the teachers their opinions; this leads them to help each other and creates an *esprit de corps*, and reduces self-consciousness to a minimum. They thus learn to apply successfully what they know. Professor H. E. Armstrong sees both the advantages and disadvantages of this method. It develops readiness of address and encourages cuteness, but it imposes a very heavy burden on the teacher and operates against close study and concentration of attention. The last-named drawback is made a cause of common complaint by heads of schools; on the one hand, by teachers in elementary schools who see this tendency increasing in their scholars, and, on the other hand, by teachers in high schools who fortunately see it gradually diminishing, as the pupils grow older.

THE EXAMINATION SYSTEM.—The harmful effect of the examination system receives the unqualified disapproval of the Commissioners. Rev. T. L. Papillon thinks that we in England may well envy Americans in their freedom from this system. He

proceeds to put the case very forcibly. Examination, useful and necessary within due limits as a test of progress, is unfit to be the main object of education. It is a good servant, but a bad and tyrannical master. If our whole system of college and public school scholarships, involving perpetual examination from the age of nine or ten to the university degree, could be dropped into the Atlantic, America would not care to fish it out and England would be wise to leave it there. Professor T. G. Foster refers to the "terrible weariness" and the deprivation of the dignity of the teacher by the imposition of so many outside restrictions and examinations which are associated with the British system. His conclusion is equally drastic. As long as examinations control the teaching, whether in universities or schools, so long will the teaching continue to be academic in the worst sense, cribbed, cabined and confined. In American universities it is a fundamental principle that the man who is fit to teach is also to be trusted to examine his own students, and this freedom promotes a lasting atmosphere of quiet study and scholarly work, so unlike the feverish bursts of cramming characterising British institutions. Professor H. R. Reichel perceives the great educational advantages accruing from the American system of accrediting schools to universities without entrance examinations to be more freedom in the choice of curriculum and the removal of the well-known evils attending the preparation by one set of men for examinations conducted by another set.

THE SCHOOLS AND PATRIOTISM.—Professor Reichel also speaks very graphically upon a strong feature of American schools—the teaching of patriotism or citizenship, of the beneficent results of which there is plenty of evidence. It assumes a special importance in America owing to the enormous influx of immigrants. Patriotism is a school subject and is taught with extraordinary success. The public school is said to be the stomach of the nation and digests everything put into it, the laboratory of national unity, the guarantee of the national future. American patriotism thus belongs to the schools, and everyone is proud of it; while in England it is left to be desecrated by the music halls, and a large section of the best social workers are ashamed of it—a condition of things neither wholesome nor safe. Rev. A. W. Jephson shows that the flag of America is made very real to the children, who daily salute and swear fidelity to it. Everywhere the history of the States is fully and completely taught, and the books used would be a revelation to most of our authors, compilers and teachers.

THE USE OF LIBRARIES.—The advantages of American college libraries are emphasised by Professor M. Maclean. It is usual

to have a specialised library, with a separate librarian, in each department—a more costly method than ours of providing one for a whole college, but highly desirable. All the scientific journals bearing on its work are received in each department and distributed among the students. Once a week the readers meet and each gives a summary of the important papers in the periodicals assigned to him. According to Councillor Whitburn, a valuable aid to education is found in the co-operation of the public libraries with all the lower grades of schools. Whatever the nature of the study pursued, a number of copies of a standard work upon the subject are loaned.

Teachers and their Training.

THE PREPONDERANCE OF WOMEN.—Some very frank expressions are made by the Commissioners concerning the preponderance of women in the teaching profession, and convincing figures are supplied upon the point. Taking the last matter first, Professor Reichel gives the relative proportion of teachers in the elementary schools as six or seven women to one man, and in the high schools three to two respectively. At one of the training colleges visited, between 300 and 400 women students assembled to 28 men. Professor Ripper adds that in many of the common schools all the teachers are women. Again, the Rev. H. B. Gray states that in the Latin and English schools of some Western cities the proportion of women to men teachers is 75 to 25 per cent. This condition of things leads to the not uncommon spectacle of a young woman of 24 or 25, who has just passed university requirements, teaching youths of 18 and over. Councillor Whitburn records the startling fact that fully 92 per cent. of all the teachers in the primary schools are females, and Mr. A. J. Shepheard confirms this by pointing out that in the elementary schools the male teacher hardly exists. Passing on to the first part of the question, Mr. Gray mentions the serious fact that not more than seven per cent. of the male teachers stay in the profession more than five years, nor more than five per cent. make it their life's vocation. According to Mr. H. R. Rathbone, the generál opinion of American educationists themselves is that the elementary schools should not be left entirely to women teachers, and that male teachers should predominate in the high schools. Rev. A. W. Jephson shows that the danger of the female element dominating the profession is being felt by mentioning that certain teachers met to discuss the question of how to prevent the effeminisation of the school staffs. Professor T. G. Foster holds that it cannot be for the virility of a nation for a large number of its boys to be taught and guided almost entirely up to

the age of 18 by women, as is the case in some States. Rev. H. B. Gray also agrees that the preponderance of female teachers in the higher or secondary schools has an effeminating effect on the character of American boyhood. It cannot be regarded without alarm, for there is an ever-growing tendency for women to displace men in all but the highest posts. Professor H. E. Armstrong utters, perhaps, the strongest condemnation of the practice of giving the predominant influence to women teachers. He bases it mainly upon the general influences of life. Nowhere is the claim for the equality of women with men put forward so strongly as in America. Nowhere would it be found to be more disproved in in practice, if carefully inquired into. Women teachers must be, *for* most purposes, relatively inefficient; and as teaching is an occupation in which individuality, insight and originality are *wanted*, it is important that men rather than women should be in the ascendancy. Professor Armstrong concludes by declaring *it imperative* that in both countries we should discover means of attracting men with practical instincts and of superior mental gifts in the teaching profession. There is much to be said, however, for the view of Mr. W. C. Fletcher, who advocates the mingling of men and women on the school staff. The benefits to boys of being partly taught by women, and perhaps even more to girls of being taught by men, American experience shows to be great.

THE FINANCIAL PROBLEM.—It is quite clear that the scarcity of men in the teaching profession in the States is almost entirely due to the fact that teachers are so poorly paid. Professor Reichel was informed that the salaries offered will secure first-rate women but only third-rate men, the competition of well-paid business employments being so great. Professor Foster says, in general terms, that the employment of women to the exclusion of men in the public schools is mainly a question of finance, but the demand for men's labour in the industrial and commercial world is also largely responsible for it. Rev. H. B. Gray has a sorry tale to tell. Comparatively few wealthy Americans have endowed the teaching staff of either universities, secondary schools, or elementary schools. Even the Harvard professors are not too well paid. The case is worse in secondary education. Here the teachers are so poorly paid by the State that the teaching profession has ceased to be a career at all. Again, as teachers are entirely State paid, there is a cut and dried system by which they rise step by step, and exceptional ability is hardly, if at all, recognised. Mr. H. R. Rathbone also traces responsibility for the unsatisfactory social standing of the profession in America to the

inadequate salaries paid, which practice he considers false economy. That a people so generous in their expenditure on school buildings should not be more liberal to their teaching staff is surprising and disappointing. Thus, the attractiveness of the teaching profession is destroyed.

THE METHODS ADOPTED.—Upon the important question of the training of teachers in America the opinions of the Commissioners appear to not altogether coincide. On the one hand, several incline to the view that in this matter the Americans do not seem to be further advanced than ourselves. Rev. J. W. Jephson explains that the general idea in America seems to be that young people, on leaving the high schools, about 18 years of age, are induced to continue their studies for two to four years longer at the normal school, and then to receive a diploma. But as each State and many cities are autonomous, these practices do not by any means always prevail. Mr. Jephson visited some places where the training was conspicuous by its absence. Teachers come into the schools, with or without training, as the case may be, or as the demand requires, or as the superintendent may think fit. Mr. W. C. Fletcher states that all the normal schools of every kind put together can hardly turn out a quarter of the annual supply needed for the elementary schools, and that secondary teachers are not, in general, trained at all. Professor Armstrong adds that the methods adopted in training teachers appear to be no less academic than ours.

On the other hand, Mr. A. Anderton supports the view that very great importance is attached to the training of teachers. In all the cities and States ample provision is made for the training of all candidates for the teaching profession. It is essential that before a candidate is considered qualified to enter the normal training school he should have successfully passed through the high school, thus giving assurance of a sound general education as a basis on which to specialise. Mr. H. R. Rathbone speaks even more emphatically in the same strain. The practice to which all the best American schools conform is that teachers in elementary schools should have secondary or high school education, and that teachers in secondary schools should have a university education. In addition to these minimum acquirements, a period of training, varying from one to three years, is almost everywhere insisted upon. Mr. Rathbone judges favourably of the work of the American training schools and that the general excellence of the teaching in the public schools is largely due to the thorough training of most of the teachers. In the same scale comes Professor Armstrong's belief that the teachers in the elementary schools in

the larger cities usually all pass through a period of high school training prior to entering the normal or training college. Mr. A. J. Shepheard admires the plan of attaching to the training colleges special elementary schools for use by the students in their practical work. He also notes that there are over 200 colleges (not including normal schools) offering training courses for teachers seeking degrees. There is also a strong feature in favour of American training noticed by Rev. H. B. Gray. Teachers, in the elementary schools especially, have a grasp of the *scientific principle in teaching*, attributed to the fact that every teacher has to *go through a complete course of the theory of teaching* and of the principles of psychology before being permitted to teach at all.

SCHOOL CONFERENCES.—A helpful factor in the life of the American teacher is the arrangement of frequent conferences. These are, Mr. A. Anderton says, for keeping teachers in touch with the work of other schools, and are usually presided over by the Superintendents of Education. Matters bearing upon all phases of the work are discussed, which the teachers are encouraged to feel affects not only their own schools but extends to and influences the life and character of the city, the State and the nation. Even more interesting, and, perhaps, more useful, because they aim at unifying the home and the school life, are the conferences between the teachers and the parents, which Mr. Rathbone describes in detail. They are held in the school; a simple tea is provided by the teachers, the children compose and copy the letter of invitation, and more than 50 per cent. of the parents attend. The idea underlying these conferences is that the teachers and parents are in partnership, and need constant association to secure perfect harmony in view of their common object.

Secondary and Commercial Education.

There is abundant evidence in the Commissioners' reports to show that secondary education is fully recognised in the States as being absolutely essential to ultimate success. Mr. C. Rowley sees a real danger in the blindness of most people in England to this fact, and also to the defective state of secondary education. Rev. T. L. Papillon points out that, in this regard, the lesson for England to learn from the position of America is to give a greater variety to the curriculum for secondary education to suit the practical needs of life and to make it available for all—in fact, the creation of something analogous to the excellent high schools in America.

ATTENDANCE AT SECONDARY SCHOOLS.—Remarkable statistics indicating the recent rapid growth of secondary schools in America are quoted by the Commissioners. The different points of view from which they individually approach these statistics make the general position very clear. Professor W. Ripper maintains that secondary education has become as really and actually a part of the American system as the primary school. Every little town of over 1,000 inhabitants demands that a high school course shall be provided for the senior pupils of its public schools. Approximately one per cent. of the population in the States are pupils between the ages of 16 and 18 attending secondary or high schools. The attendance at the schools is increasing at a rate five times as fast as the rate of increase of the population. Mr. W. C. Fletcher makes some startling comparisons. Taking English pupils over twelve years of age as really receiving secondary education corresponding to that given in American high schools from 14 or 15 to 18 or 19, he shows that England, with a population of 30 millions, has 166,000 boys and girls receiving secondary education, *i.e.*, five per 1,000; America, with a population of 78 millions, has 736,000, *i.e.*, 9·5 per 1,000. Comparisons of individual cities are even more vivid. No English county borough shows more than twelve and most cities have only four to six per 1,000. American cities, on the other hand, have from 17 to 24 per 1,000. And the significance of this is that the States have nearly doubled their relative high school attendance within twelve years. Mr. J. R. Heape quotes the actual figures exemplifying this growth. In 1890 there were 2,526 high schools in the States; now there are 6,005 with 560,000 pupils. Including private schools, there are 750,000 scholars in attendance from twelve years of age and upwards. Councillor Whitburn's testimony should be added that students taking up the study of Latin in the secondary schools are increasing ten times as fast as the population.

PRIVATE SCHOOLS.—As with us, so in America, private enterprise has, until comparatively recently, supplied the facilities for secondary education, but there is not much information given by the Commissioners upon this question. Mr. W. C. Fletcher presents, perhaps, the best view of the position of private schools as a whole. West of the Alleghanies these schools do not form any important part of the general system in the States. In the East the early secondary schools were private institutions, and, in spite of the development of the public high schools, the private schools are likely to retain a place of their own. However good the public schools become, they will never meet the wants of people

in crowded cities who can send their children to well-managed schools in the country. For these, among other reasons, Mr. Fletcher holds that in America, as in England, there is abundant room for private schools at high fees—little or none at low ones. Professor T. G. Foster says that in some States the institutions were known as academies, where fees were high and education seems to have been as various in its quality as it is here. The public high school has gradually supplanted the older academy, and has usually become the regular place of education for the children of both sexes. Rev. T. L. Papillon refers favourably to private "preparatory" or "fitting" schools, which exist side by side with the public high schools, and which are said to be increasing, and the demand for which is also likely to increase. These schools are unaided from public funds; in cities they are generally day schools often connected with and partly supported by religious bodies and giving systematic religious instruction; in the country they are boarding schools, somewhat after English models in regard to administration, organisation and fees.

THE RELATION OF SECONDARY SCHOOLS AND HIGHER INSTITUTIONS.—There would seem to be no loose connection between the secondary or free high schools and the technical institutions and colleges in America. In fact, according to Mr. J. R. Heape, the rapid increase in the number of the high schools is largely due to the attention given to the adjustment of education to commerce and industry; thus, their curricula are being adapted more and more to prepare students not only for the ordinary avocations of life but for entrance to the technical institutions, colleges and universities, where specialised training is pursued. The result of this prevailing tendency is seen outside the schools, for whereas 50 per cent. of the population were engaged in agriculture in 1880, ten years later the proportion was only 39 per cent. That the value of secondary education prior to specialisation is realised in America is shown by Mr. A. Anderton, who declares that graduation at the high schools is accepted as a sufficient guarantee of the preparedness of students to take the full courses at the colleges.

THE CO-ORDINATION OF PRIMARY AND SECONDARY SCHOOLS.—Mr. W. C. Fletcher accuses the Americans of trying to ignore the serious difficulty of securing proper co-ordination between the primary and secondary schools. Truly, overlapping is prevented by the mere circumstance that the high school has grown out of and is simply superposed upon the elementary school. But the general atmosphere and conditions of the latter are so different that, upon entering the high school, the boys immediately meet difficulties.

As a result, more students leave during the first high school year than at any other stage. Sometimes from 80 to 95 per cent. of the children leaving the elementary schools enter the high schools, but perhaps one-third of them drop out during the first year. From his investigations Mr. Fletcher summarily concludes that for high school and university purposes the time spent in the last two grades in the elementary schools is worse than wasted.

COMMERCIAL TRAINING.—The departments for business and commercial training established in many of the high schools are described by Professor Ripper. The aim is to enable students to keep books, make out bills and write business correspondence, as well as to gain a general knowledge of business laws and customs. Rooms are often fitted up with an elaborate business-office equipment, including a large number of type-writing machines. These departments showed very thorough work, which had a serious and real meaning to both pupils and teachers.

THE EFFECTS OF SECONDARY EDUCATION.—At least two of the Commissioners specifically notice some of these. Mr. A. Anderton, speaking in general terms, was struck with the better-prepared class of students entering the higher institutions than in England on account of the organisation of secondary education on a broad and liberal basis and as part of the public school system. Councillor Whitburn records the important truth that the higher education of the children does not produce a distaste for manual labour. It is possible to trace the influence of the high school training in the manners and capacity of all the young people to be seen at work in the business places and factories of the United States.

Manual Training.

ITS GENERAL UTILITY AND ITS POSITION IN AMERICA.—The Commissioners unanimously agree as to the essential value of manual training. It promotes alertness; develops individuality and the physical, mental and moral qualities generally; calls out the creative power; by contact with constructive handwork, it raises the status of industrial work. It is not so much a subject of instruction as a method, and thus, Mr. J. R. Heape adds, it not infrequently infuses new life into a child who is dull and who seems to be absolutely irresponsive to the usual educational stimulus of books. Mr. Heape strongly urges that the only defensible argument for its general teaching in all schools is its educative value, and that this is not limited to the subject itself but extends to the rest of the curriculum. The American conception of the right use of manual training seems to be fully in accord with this

view of Mr. Heape, who shows that great and increasing importance is being given to its inclusion in the curricula of the schools, from the kindergarten up to the high school; though now only about 25 per cent. of the schools include it. Rev. H. B. Gray also says it is regarded in many of the best developed schools *as an integral part of a liberal education.* Again, Mr. H. R. Rathbone was deeply impressed with the importance of a well-considered system of manual instruction, both in the elementary and secondary schools. Professor Reichel mentions the great preponderance of American opinion both among educationalists and industrialists in favour of making it in some form or other universal in those schools, provided a strong culture element is preserved. But he quotes an individual opinion that, if the training is done effectively on educational principles in the elementary school, it is only needed in the high school as part of a specialised training. Mr. W. C. Fletcher's personal view was confirmed by his visit that it is better to have a moderate amount of *manual* training—compulsory perhaps in the lower classes, optional in the higher—in all schools. Again, Mr. Heape points out that *manual* training has spread from two sources in America, representing an opposite extreme of thought—the high school, *emphasising* the utilitarian side, and the kindergarten purely as an educational idea. The union of these two growths constitutes *manual* training as seen in the States to-day.

TRAINING OF TEACHERS.—Upon this question American opinion and practice is pronounced. Professor Reichel informs us that effective manual training cannot be carried on without a supply of educationally trained specialists to act as organisers and supervisors, and where possible, as teachers. The ordinary teachers who have taken manual training courses (which are highly commended) at the training colleges may do useful work, but only if there are specialist supervisors behind. These supervisors are the mainspring of the system in New York. They must have spent four years at a high school and three or four at a college or normal college. They do not teach in the schools themselves, but instruct the teachers and follow their work. Professor Armstrong expresses the view that the teachers, even in the manual training high schools, are not competent to develop the subject pedagogically. Mr. J. R. Heape explains in great detail the training of teachers and the actual methods of teaching educational handwork in American institutions. Even all teachers giving kindergarten instruction are specially trained. With extreme thoroughness an excellent foundation is laid for the observation and manipulative work to follow. The gist of his conclusions upon the whole matter, as it

affects English conditions, is that not only should the educational course for teachers be specially adapted to fit them to give manual instruction but that the teachers should, in general, be excellently trained.

THE HIGH SCHOOLS.—Professor Armstrong speaks of manual training as an important departure in these schools, leading to the development of special departments and, sometimes, of distinct high schools for manual training, which subject takes the place of classics. The majority are tending to merge into trade schools and are elaborately equipped with tools. Messrs. Fletcher and Heape also give further details of the work of these schools. The former declares that in general the manual training is separated altogether from the ordinary high school. In this case half the school week is given to manual work and drawing in the one school, while in the other there is no manual work at all. The work is very elaborate, embracing not only woodwork, chipping and filing and forging but lathe work, casting and the actual construction of machinery, while the equipment—machine tools and an ample installation of power—is expensive. Mr. Heape mentions the extremely fine buildings of these schools. There is frequently a forge shop with 20 forges, a foundry or a furnace for iron, or a mechanical engineering workshop, or a good school of art, all splendidly fitted. Sometimes as many as ten hours per week are devoted to manual training. Professor Reichel, among other valuable conclusions upon this subject, writes that the manual course in the ordinary high school is largely technological, but that there is also a movement to make the work more definitely educational by correlating it with the art department and with the teaching of mathematics.

Co-education.

Upon the question of the co-education of the sexes there is not absolute agreement among the Commissioners; nor is American opinion itself completely unanimous, although in the elementary schools the system is well-nigh universal, in practically all the secondary schools is carried on up to the age of 18 or 19, and is general in the universities (it is not by any means so generally adopted in the Eastern and Southern as in the Western States). But in both cases the balance of weight seems to be in favour of it.

Taking first the objections urged against the system of co-education, Professor Armstrong, while admitting that it may be possible, even desirable, to adopt it for the earlier years of school life, thinks it will be found sooner or later to be wrong to do so during the later years, if the object be to develop a virile man.

This view is largely corroborated by Mr. H. R. Rathbone, who observed that in the elementary schools co-education is attended with excellent results, but it is not so entirely satisfactory in the high schools and universities. His chief objection to it is that precisely the same education cannot be equally good for classes whose work in after life will probably be so different. This seems to be met, however, by the elective system of studies, referred to by Mr. W. C. Fletcher, so that the same curriculum is not necessarily followed: some subjects are taken easily in common; others are rarely taken by boys or girls, as the case may be. Further tangible objections put forward are that in certain parts men and boys dislike the system, preferring to choose other than co-educational institutions, and that it effeminises the men too much.

As regards the favourable opinions and experiences respecting co-education, Mr. Fletcher found in the Western States, where the system has grown up from the beginning, very few people indeed who questioned its wisdom; it was unanimously considered to be very beneficial morally. Rev. H. B. Gray unhesitatingly declares that the advantages of the system in day schools and also in boarding schools far outweigh the disadvantages. The *camaraderie* between the sexes by the system of co-education is, on the whole, vastly beneficial to the American boy and girl alike. There is an absolute *absence* (even *disappearance*) of the sexual strain; no trace of sentimentalism is ever apparent, the girl being regarded as the class-mate and nothing more. Mr. Rathbone noticed that the strong opponents of the system were people who had not themselves been educated under it; those who had were almost always strong advocates of it. Generally, he thinks that the objections usually urged against it are groundless. In conclusion, special attention should be given to Mr. Fletcher's deductions regarding the direct application of the system of co-education to English conditions. There remains much doubt whether, in the long run, it is one to be copied. The proved benefits of the system are sufficient to give confidence in adopting it in sparsely populated districts where there are not children enough to support two good schools; but not great enough to cause any effort to be made to overcome the popular objection to it in towns where good separate schools are possible.

Technical Training.

Upon this subject the Commissioners' conclusions and suggestions are very valuable and varied. Mr. R. Blair devotes to it the whole of his report, which is a mine of information respecting the conditions and practices prevailing in America.

THE CHARACTER OF THE TRAINING.—The first important point to notice is that made by Mr. W. C. Fletcher, who states that technical education in America presupposes at least a complete high school course, and one not required to be specialised in a technical direction. Professor Maclean goes on to say that American manufacturers and employers of labour are more ready than here to recognise the superiority of the trained student over the untrained artisan, and are eager to obtain technically-trained men to direct their work. Students are better prepared for, because older before entering upon, their work than in this country; they are not in such a hurry to get started. Professor Ripper puts the case thus: that it is possible to do much superior work with students of American technical colleges than with younger boys, as the former are from 18 to 25 and 26 years of age and have received a high school and in some cases a college education. Mr. Blair also traces the secret of America's position to the form of preparation for industrial work little known in England, as seen in the age and number of the students in the technical institutions, their previous preparation, the four years' courses and the number of graduates who remain to study. In fact, the weight of the Commissioners' evidence shows that the provision for the training of our leaders in industrial and commercial life is miserably inadequate.

THE RELATION OF INSTITUTIONS TO INDUSTRY AND COMMERCE.—Another point emphasised is the close connection existing between technical institutions and industrial and commercial organisations. Mr. Blair declares this to be an essential factor in a successful solution of the problem of technical education. Rev. T. A. Finlay testifies that in the sphere of specialised studies the universities keep themselves in touch with industries. They maintain schools of the practical arts, such as pedagogy, pharmacy, engineering, architecture, the mechanical arts, agriculture and forestry. Besides furnishing trained teachers in these branches, they prosecute research work, and thus put the best thought of the country at the service of its industries. Professor Ripper explains in striking terms the cordial relationships existing between the leading colleges and the works and between the professors and the manufacturers. The college keeps in close touch with the actual practice of the works. There are periodical visits of the students to the works, and similar visits to the college of occasional lecturers who are distinguished engineers or commercial men. Many of the professors are at the same time engaged in actual practice as consulting engineers, and they are given full power to carry on their professional practice, without interfering with

EDUCATIONAL ORGANISATION IN AMERICA (A JUNIOR CLASS OF A PUBLIC SCHOOL—TEACHING PRACTICAL GARDENING). (See page 220.)

MANUAL CLASS IN A PUBLIC SCHOOL). (See page 229)

claims of the college. The effect of this is that the college is prevented from becoming a mere book-learning institution and the professor from becoming stale and out-of-date.

APPRENTICESHIP.—The question of the education of apprentices is, as stated by Professor Ripper, now receiving much attention in the United States, where it seems the British trained apprentice is a very much valued product, because his training is longer, he is taught more thoroughly and he is a more patient and careful workman than the American. The American manufacturer trains the apprentice as a matter of necessity to meet the demands of his own business, because it pays him to do so, by raising the class of his employés. Professor Maclean says that the trade schools are acting as a tentative substitute for the old system of apprenticeship which is now practically becoming extinct. He also notes that in the States generally no premiums are charged for apprentices, who earn from the very first what may fairly be called a living wage. A more remarkable fact is that the American employer always keeps an open door for the technically trained man without setting an age limit, as in the case of the non-college men. There is no doubt that college graduates would be taken on as apprentices after 21 years of age. The moral influence of this attitude of the employers towards the schools and their graduates is very great.

As regards the different classes of trained workmen, Professor Maclean shows that the best results are achieved in the least possible time by the men who have worked three or four years in the trade before going to evening technical schools and by actual apprentices who attend school. Of these two plans, the latter is preferred because more valuable. It permits the practical and theoretical training to be carried on simultaneously and is more interesting to the student workman.

Mr. R. Blair succinctly summarises the forms of apprenticeship obtaining in America. These are—(1) the three or four years' system occasionally provided to offer opportunities to sons of foremen, superintendents of shops, etc.; (2) the two years' course for college men, who are put through the shops in a short time and who are paid 30s. per week during the period of probation; (3) a scheme of employment for sons of friends, relatives, etc., of heads of firms and of important customers.

Finally, Professor Ripper notices an interesting feature in connection with several large works in America. An official called "superintendent of apprentices" is appointed to look after their interests, to watch their work and to secure their methodical promotion to obtain the best possible training in the time. The

duties also extend to observation of their health and general conduct, visitation of their boarding houses, advice as to attendance at evening classes, preparation of reports of their progress which are examined by the heads of the firm, etc.

Agricultural Education and Research.

Among the most striking developments in the American systems studied by the Commissioners was the effect of education and research upon agriculture, which Rev. T. L. Papillon well describes as the oldest, the greatest and the most widespread of industries. The Americans keenly recognise that the highest and most scientific education is necessary for the *business* of agriculture (the italics are ours). The provision made for it is gratefully received by agriculturists, and contributes largely in an agricultural State to the popularity of the State university. This is fully corroborated by the facts given by other of the Commissioners. Mr. W. C. Fletcher notices the agricultural department of Illinois University, which, being associated with the Government experiment station, does a great amount of research work. The different agricultural societies promote Bills in the Legislature for grants to the particular department in which they are interested, and which is under a director (with a staff of farmer-specialists in each subject) and a committee of the society interested. The department deals annually with an advisory correspondence of 12,000 to 14,000 letters. The acknowledged value of the instruction is seen in the fact that there is a great demand for graduates as managers and confidential advisers to large farmers. Professor H. E. Armstrong eulogises the Agricultural Department in Washington—not merely an office but a busy hive of research. A large number of laboratories are attached and investigations conducted bearing on agricultural problems. The research work there and in the experiment stations is contributing most materially to the development of the agricultural industry. He gives a single forceful example of this. The sugar industry in beet has completely outstripped that in cane; in other words, an important industry has been created, and at the same time farming practice has been vastly improved and land has increased greatly in value from proper treatment. Much of this is due entirely to the influence exercised from Washington. An extraordinary influence is also exerted upon American farmers by the distribution of literature, and they are being led to see that science is indispensable to agriculture.

Professor Reichel adds great weight of testimony. The development of higher agricultural education in the States has been connected with the working of experiment stations, of which there are now 52, the directors being partly men of science and partly practical farmers who have graduated in agricultural colleges. The influence of the stations is due, first, to the free distribution of Government reports, and, secondly, to their use by the State agricultural colleges for the training of young farmers and for the direct improvement of the agriculture of the district. Success depends upon (1) the free distribution of Government reports in popular form, and (2) the growth of farmers' institutes, which firstly revolutionise and then educate agricultural opinion. Professor Reichel's conclusions are unmistakable. The success of agricultural colleges depends on the confidence of the farmers ; the confidence of the farmers can only be won by conferring *direct and obvious* benefit on their industry ; such benefit can only be conferred by means of experimental work which entails substantial expenditure, and this can rarely be derived from local sources.

V.—THE TRAINING OF TEACHERS.

(I) PRELIMINARY PROPOSALS IN VARIOUS DISTRICTS.

(Continued from "The Record," January/March, 1904.)

(*d*) JOINT CONFERENCES IN THE EASTERN COUNTIES.

Introduction.

During the past few months important steps have been taken by the premier Local Education Authorities with the view of creating the machinery to secure an adequate supply of trained teachers to meet the needs of the whole area of the Eastern Counties. Four joint Conferences have already been held, at three of which representatives attended from all the eleven counties and the four county boroughs in the area. The following is a list of the Local Authorities who participated in the Conferences with the numbers of their respective representatives :—

COUNTIES :—Bedford (four); Cambridge (seven); Essex (four); Hertford (one); Huntingdon (three); Isle of Ely (three); Norfolk (three); Northampton (one); Soke of Peterborough (one); East Suffolk (seven); West Suffolk (eight).

COUNTY BOROUGHS :—Ipswich (five); Northampton (three); Norwich (two); Great Yarmouth (two).

Summary of the Proceedings of the Conferences.

THE FIRST CONFERENCE, which was held at Cambridge on the 25th November, 1903, defined as a basis of action the extent of the area as already noted wherein the Local Authorities should be invited to co-operate.

Courses of Training.—Resolutions were also passed to the effect (1) that elementary school teachers should have open to them two courses of training :—(*a*) an elementary and a secondary school course to the age of 19, including one year of probationary teaching in an elementary school, supplemented by a year's professional instruction and practice in a training college, or (*b*) a

similar school course, supplemented by a university course, including professional instruction in a training college; and (2) that in the course of training offered such subjects as are specially suitable for rural schools should be included.

It was referred to a special Sub-Committee to further develop the scheme referred to these resolutions; their report appears on pp. 256-8.

THE SECOND CONFERENCE, which was held at Ipswich on the 10th December, 1903, and was confined to the representatives of Education Authorities in East Anglia only, discussed the same preliminary matters as the first Conference.

In addition, other resolutions were passed to the effect—(3) that it is desirable that additional undenominational training facilities should be provided for elementary school teachers in East Anglia; (4) that each of the Education Authorities in the suggested area be invited to appoint two representatives to form a Committee to draw up proposals to be submitted to the several Authorities; (5) that the Committee be asked to take into consideration the question of the advisability of interviewing the Board of Education with a view to the grants now made for the training of teachers being increased.

THE THIRD CONFERENCE was held at Cambridge on the 9th February, 1904. The report of the special Sub-Committee, appointed at the first Conference, was submitted, and is printed on pp. 256-8. It was decided that the various Education Authorities be asked for a general acceptance of the report, and to appoint two representatives to form a Joint Committee to further consider it. A deputation to the Board of Education was also arranged to ascertain whether a scheme for the training of elementary teachers on the lines indicated would be likely to be recognised by the Board, and be entitled to receive the usual training college grants if carried into effect (see report on p. 260).

THE FOURTH CONFERENCE, which was held at Ipswich on the 20th February, 1904, further discussed and confirmed the resolutions passed at, and the proceedings of, the previous Conferences. In addition, other resolutions were passed to the following effect, and these, it will be seen, embody the definite line of action to be taken upon the report of the special Sub-Committee, as soon as the respective Education Committees arrive at their decisions, and appoint representatives to serve on the Joint Committee of Management:—

(6) *Training College Accommodation.*—That at least one college for men and one for women in the Eastern Counties should be at the disposal of the Local Authorities, and that such colleges would

best be provided by building a new college for men and utilising one of the existing undenominational colleges for women;

(7) *Area.*—That an undenominational training college for men be established by the combined County Councils and County Borough Councils of those counties which contribute to the Cambridge University Board of Agricultural Studies;

(8) *Proportional Contributions.*—That the cost of the building, equipment and maintenance of any training college that may be erected should be borne by the combined Authorities in proportion to the assessable value of their respective areas;

(9) *Local Candidates to have Preference.*—That the combined Authorities have the right to nominate candidates for admission to the training college in proportion to the amount of their respective contributions;

(10) *Joint Committee.*—That the Joint Committee of Management be elected by the combined Authorities, each Authority appointing two representatives.

Report of Special Sub-Committee.

Your Committee have further considered the question of the training of teachers, and have visited the following training colleges in the Eastern Counties:

Name.	Number of Students.	Annual Output.
For Men: Peterborough (Church of England)	52 ...	26
Totals—Men	52 ...	26
For Women:—Homerton (undenominational) ...	200 ...	100
Saffron Walden (undenominational)	62 ...	31
Norwich (Church of England) ...	64 ...	32
Bishop's Stortford (Church of England).....	82 ...	41
Totals—Women	408 ...	204

[Cambridge University Day Training College (undenominational) has 48 students, and the average annual output is, therefore, 16. As this College works on a three years' course, it stands in a class by itself and is not reckoned in the above.]

The Education Act of 1902 having put the training of teachers into the hands of the Local Education Authorities, it is highly desirable for many reasons that the largest possible area should combine and work in unison. In the area represented by the Eastern Counties Conference there is an average attendance of

483,117 children in elementary schools, and on the basis of one teacher to 50 children, a staff of 9,662 teachers, or say 10,000, is required. Mr. Rankin, in the 1902 Report on Training Colleges, page 161, deals with the question of the national yearly output of trained teachers necessary to carry on the work of public elementary education according to present numbers. He assumes that the life of a teacher is 20 years, and on this basis in the Eastern Counties, with a normal staff of 10,000 teachers, renewals to the number of 500 yearly are necessary.

The following are the latest figures in the possession of the Board of Education with regard to the proportions of male and female teachers at present engaged in elementary schools :—

Number of Teachers.	Males.		Females.
Certificated	26,293	...	44,593
Provisionally Certificated	3	...	17
Assistants	5,468	...	32,688
Provisional Assistants	55	...	40
Additional (Art. 68)	—	...	17,820
Pupil Teachers	4,689	...	22,743
Probationers	478	...	2,400
Totals	36,986	...	120,301
Proportion of total (about 3 women to 1 man) : per cent.	23·5	..	76·5

The numbers of successful candidates at the King's Scholarship Examination, 1902, were :—men, 1,454; women, 4,536; or again about 3 to 1.

Assuming that the accommodation for women teachers is sufficient (400), and that the proportion of three to one is correct, the accommodation for male teachers should be 133, showing a shortage of 83 places. On the other hand, taking the country as a whole, there is accommodation for 1,537 men students, and the number of qualified candidates, as given above, in December, 1902, was 1,454. If the one year system were adopted, by the time it came into full operation there would be a surplus of places. It must, however, be some time before the one year system can come into full operation. Nothing is allowed in the above statement for increase of school population, and the average of one trained teacher to 50 children is very low. Moreover, we may expect, under more stable conditions and with improved salaries, more men will be attracted to the profession of teaching. There is also no undenominational college for men in the Eastern Counties.

RECOMMENDATIONS.—Your Committee, therefore, recommend (1) the provision of additional accommodation for men, say for 50 to begin with.

This accommodation might be supplied by starting a new college either at Norwich or Ipswich, or by adding an undenominational section to the college at Peterborough. It is important to have the college at a large centre of population so as to have sufficient schools for practising. At Cambridge there are already the Day Training College, Homerton, and the Women's Secondary Training College, and there would be some difficulty in finding all the practising schools that would be necessary.

They further recommend (2) that the Authorities of Homerton College be approached with a view to the Associated Counties taking over the College, it being important that there should be at least one college for men and one for women in the Eastern Counties provided by the Local Authorities.

If this were done, the whole difficulty could be solved within the next three years by a general adoption of such a scheme of training teachers as is appended to this report, whereby the college training course is reduced to one year and the existing output of teachers is doubled.

There would necessarily at first be two systems of training carried on side by side, for during the next three years the existing pupil-teachers would finish their course and the newly-educated lot would simultaneously grow up and take their places, and consequently the transition period as affecting training colleges might be reduced to one year.

This scheme in broad outline was laid before the authorities of each of the training colleges visited, and your Committee were surprised to find a striking unanimity of feeling in favour of a change in the direction indicated. Various suggestions affecting details were made, and they have been incorporated in the appended scheme.

Finally, your Committee recommend (3) that the members of the Conference, in the event of this scheme being favourably received, report to their various Education Authorities, asking for a general acceptance of the same, and that each county and county borough be asked to appoint two representatives to form a Joint Committee further to consider the scheme.

SUGGESTED SCHEME FOR PROVIDING ADDITIONAL ACCOMMODATION FOR THE TRAINING OF TEACHERS.

This scheme is drafted on the basis of a one year's course in a training college, according to the resolution passed at the First Conference at Cambridge.

(1) Scholarships from Elementary to Secondary Schools.

Elementary teachers will, in the future as in the past, be largely drawn from the elementary schools, and consequently it is very desirable that every County or County Borough Education Authority should establish, if they have not already done so, a liberal system of scholarships from elementary to secondary schools, encouraging transfer at the age of eleven-twelve years.

(2) Selection of Young Teachers.

The future teachers might be selected on the recommendation of the head-teacher of the secondary school where they were being educated. They would then continue their education at the secondary school, with such practice in teaching as each Education Authority deemed best, until they had passed the Board of Education Examination or some equivalent examination.

(3) Remuneration or Augmented Scholarship.

During this period they should receive as maintenance allowance, by way of augmented scholarship or otherwise, a sum not less than £10 nor more than £20 per year.

(4) Training College: One Year Course.

Teachers so prepared would finish their training by one year's residence in a training college devoted exclusively to the theory and practice of education. The subjects specially suitable for rural elementary schools would, under the scheme, form part of the curriculum in the secondary schools.

(5) Age for Beginning Work.

The age by which students would finish their training and begin teaching would be 20 to 21 years.

(6) Finance.

The ordinary grants given by the Board of Education to secondary schools would carry the education of the young teacher to 16-17 years of age. If the training college course is shortened to one year, it would be reasonable to ask the Board of Education to place at the disposal of the Local Education Authorities a grant, equal to that now paid for one year in a training college, towards education and maintenance of the future teachers in secondary schools between 16 or 17 and 19 or 20 years of age.

(7) Existing Assistant-Teachers.

It is recommended that existing assistant-teachers who are recognised under Arts. 50, 68, etc., should be encouraged to obtain

proper qualification by having their fees paid at some centre, or in connection with some Correspondence System of education, for a period not exceeding two years.

Report of the Deputation to the Board of Education.

The deputation appointed at the Third Conference had an interview with R. L. Morant, Esq., C.B., Secretary of the Board of Education, at Whitehall, on the 24th February, 1904, and laid before him what might be called the one-year scheme for the future training of teachers, by means of secondary schools up to 19 years of age, and then one year's residence in a training college devoted entirely to the theory and practice of education, as set forth in the resolutions and scheme already outlined.

Mr. Morant expressed his general approval of the scheme, and hoped that the counties would combine to carry it into effect. He was of opinion that the usual grants to training colleges could be paid to a college founded on the one-year system, and he informed the deputation that the new Regulations for Pupil Teachers would be so drafted as to make it possible for Local Education Authorities to make use of secondary schools in the manner here proposed, and that the Board of Education had decided, with the consent of the Treasury, to increase the grant in aid of the instruction of Pupil Teachers from £3 to £6 per annum.

With regard to the suggestion in the eighth resolution of this Report (see also par 6, *Finance*, of the scheme for Training Teachers), Mr. Morant stated that, in the present condition of the national finances, he could not hold out any hope of this particular form of aid being forthcoming.

The deputation were perfectly satisfied that the Board of Education would welcome the one-year scheme, and would meet the wishes of the Education Authorities in the Eastern Counties as far as they possibly could, in helping to establish this method of training teachers.

(2) REGULATIONS FOR PUPIL-TEACHERS.

RECOMMENDATIONS OF THE ASSOCIATION OF DIRECTORS AND SECRETARIES FOR EDUCATION.

The following modifications to the Board of Education's Regulations for the Instruction and Training of Pupil-Teachers were passed at the general meeting of the Association held at Birmingham University on Friday, 15th April, 1904, and reviewed

in the Editorial Notes, the Regulations having been referred in November, 1903, to a Special Committee for report:—

(1) The Association expressed approval of the new Rules and Regulations for the Instruction and Training of Pupil-Teachers as being, in the main, on sound lines and calculated to improve the educational status and efficiency of the teachers, but that in the following particulars it seems necessary to seek for modifications of the Rules, having regard to the present transitional state of education and the special difficulties surrounding the position of rural schools.

(2) *In Prefatory Memorandum.*—Page 7, lines 29-31. "But no "other boys or girls will be allowed after August 1st, 1905, to "serve in any capacity in a public elementary school unless "engaged specifically as pupil-teachers and under conditions here-"after set forth as applying thenceforward to pupil-teachers." That this paragraph should not apply to rural schools under 100 in average attendance until experience has been gained of the effect of the new Pupil-Teacher Regulations.

(3) *Article* 3 to read: "Pupil-teachers during their period of "apprenticeship to attend not less than 100 meetings for each "year of such apprenticeship and not more than half the time of "such apprenticeship. The Local Education Authority to "determine the period at which such training should be taken."

(4) *Article* 8.—That the decision as to whether a school is rural or urban be left to the Local Authority.

(5) *Article* 12.—Line 3, after "or by a responsible body of managers" add "any such arrangements must be approved of by the Local Authority."

(6) *Article* 17.—Line 2, after the word "Board," add "where "the Centre is not provided by a 'Local Authority for Higher "Education.'" And in the same line delete the word "They" and add "The Teachers."

(7) *Article* 20.—Line 4, after "Preparatory Classes" add "that may or may not be."

Line 11., delete from "The number of scholars" to the end.

(8) *Article* 24.—(A) From the last two lines it is clear that the grants on pupil-teachers attending centre or preparatory classes shall only be paid for a period of two years, but in the light of the alterations proposed in favour of the rural pupil-teacher, who may be apprenticed at 15 years of age, it is necessary that grants be paid in such cases for three years.

(B) The Association are of opinion that the greater part of the cost should be met from Imperial sources. It is felt that this is a

national and not a local question, and they trust that the opinion of the House of Commons on this point will be carried into effect speedily.

(9) *Article* 28.—Page 18, paragraph (i) (1) and (2), that the question "That instruction may or may not be given after 6 p.m." should be left to the Local Education Authority.

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(10) *Date of Examinations.*—That the Board of Education be asked to alter the date for the King's Scholarship Examination so that the results may be known some weeks before the expiration of the pupil-teachers' indentures.

VI.—REVIEW.

HIGHER EDUCATION IN RURAL COUNTIES.

THE NEW SCHEME IN GLOUCESTERSHIRE.*

The following report upon the whole question of higher education was adopted by the Gloucestershire Education Committee on the 30th April, 1904. It embodies a complete scheme of higher education suitable to local needs, special attention being given to the training of teachers and to the provision of secondary schools with different curricula and suitably situated geographically; the declaration of the Committee's policy towards private schools should be particularly noted (see p. 266). The effective operation of the scheme is based upon a county scholarship system, to which reference is made in the report: particulars of this will appear in our next issue in a special section to be devoted to typical scholarship schemes instituted by Local Education Authorities to meet the requirements of the new Education Act. The Higher Education Sub-Committee have been instructed to make the necessary arrangements for carrying out the recommendations, after consultation with the Board of Education.

General Considerations.

Under the Education Act of 1902 the term "Higher Education" includes all education other than elementary, and "the general co-ordination of all forms of education" is laid as a duty upon the Local Education Authority.

The Higher Education Sub-Committee have, therefore, to consider—(*a*) (1) secondary schools (Divisions A and B) for boys and girls, (2) technological instruction, (3) the training of teachers, (4) evening schools;

(*b*) and also how these forms of higher education can best be correlated, and how such higher education can best be co-ordinated with elementary education.

It is desirable to bear in mind the principles at which the Technical Instruction Committee of the County Council arrived as the result of its experience prior to the Education Act of 1902. These are briefly—first, the strengthening of the chief secondary schools in each of the districts into which the county must naturally be divided, in view of existing means of communication; secondly, a system of scholarships from the elementary schools to the secondary schools; thirdly, the chief secondary school in each district shall be used for the purpose of training pupil-teachers and as a centre for the organisation of the evening classes and schools in the district.

The partial adoption of these principles in the past may be said to have anticipated in some measure the general plan of organisation which has found favour with Local Authorities since the Education Act has come into force, and these principles appear also to be in conformity with the latest regulations issued by the Board of Education.

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*Gloucestershire Education Committee: Report of the Special Committee appointed to inquire into the needs of the County as regards Higher Education, February, 1904.

It has, however, to be borne in mind that the responsibilities which are laid upon the Local Authority are altogether on a different scale under the Act, and that the discharge of these duties has become obligatory.

It may be well to recapitulate briefly the objects which, in the opinion of authorities on educational organisation, must be attained.

Outline of Scheme.

RECOGNISED PRINCIPLES.—In the first place there should be a "capacity-catching" machinery, by means of which boys and girls of very great ability should be drafted before the age of 13 from the elementary into the secondary school, where they should hold their scholarships for three or four years, subject to their making satisfactory progress. At the completion of this course some of these scholars would leave school equipped to receive real technological instruction, if they desire to do so; others would desire to become teachers, and for them provision might be made as suggested by the Board of Education: it is also hoped that a few would distinguish themselves sufficiently to earn special recognition and would win for themselves open university scholarships.

In the second place, it is generally agreed that real technical (technological) instruction can only be given with advantage to those who have the foundation laid of a sound secondary education.

In the third place, there must be a sufficient system of evening classes to take on children from the elementary schools.

From the standpoint of administration it may also be premised that a Local Authority which has to provide within its area education grounded on such far-reaching principles may reasonably expect to have under its effective control the several institutions which it has to strengthen, or perhaps found, and in large part to maintain. This appears to be necessary both for educational and financial economy.

THE LOCAL APPLICATION.—To divide the county into educational areas, to secure in each area the establishment of a good secondary school for boys and girls with, in some cases, as far as might be necessary, hostels attached; to create Local Higher Education Committees who shall be responsible for the provision of secondary education in their own areas; to provide as fully as possible for the training of the County Council scholars of the several areas at the secondary school of the area; to provide in each of the secondary schools an education suited to the special needs of the area, in so far as special provision may appear desirable; to secure effective correlation of the work of the secondary schools throughout the administrative county; to make special arrangements for particular students in technological studies at suitable places; to so relate the several secondary schools through their Governing Bodies with the County Education Office as to easily secure the special advantages of each school for special students or special work anywhere in the county:

Such is in outline the scheme recommended by this Committee as being best suited to meet the needs of the county, having in mind, on the one hand, what has already been done in the county, and, on the other, those ends which by a consensus of educational authorities it is desirable to achieve. To a considerable extent this scheme has already been in operation under the arrangements made, before the passing of the Act, by the County Council through its late Technical Instruction Committee.

Areas.

The division of the county into areas would be regulated presumably by—(*a*) the special features (geographical, means of communication, industrial) of such district; (*b*) the provision already existing of a secondary school or schools (for boys and girls).

The boundaries of each area can best be indicated by the map. The educational centres for such areas would naturally be Bristol, Cheltenham, Cirencester, Gloucester, Lydney, Stroud, Wotton-under-Edge. . . . Tewkesbury, Thornbury, Campden and perhaps a few other places may require special treatment.

Secondary Schools.

Secondary schools should be so equipped and staffed that varying types of secondary education may be efficiently supplied. The instruction given in these schools must be under the inspection of the Board of Education, and must be of such an unimpeachable character as to attract the sons and daughters of all who are able to pay the school fees. The schools must supply a sound general secondary education, but, having regard to the situation of the schools and the density of the population immediately around them, some would have to be more extensively equipped and staffed than others, and such schools might in special cases serve economically the requirements of the county as a whole.

Further, it would be very desirable, educationally as well as economically, to establish certain classes at some of the schools suitable to the wants of the districts in which the schools are situated. The arrangements made in consequence of the report of the Special Committee of the Gloucestershire County Council in 1899 should be carried out, and in pursuance of this principle of suiting the instruction to the district, it would appear desirable to establish classes such as in textile work at Stroud and in forestry and mining in the Forest.

The claims of the agricultural districts remote from the secondary schools may be suitably met by the establishment of hostels, where deemed desirable, in connection with the secondary schools. Such hostels should be set up by the Governing Bodies of the schools in consultation with the County Education Committee, should be on a sufficient but not extravagant or expensive basis, and should be under the inspection and control of the Education Committee through the Governing Bodies.

In some centres there is no public secondary school for girls. It is clear that, having regard to the requirements of the Board of Education and also to the fact that the number of pupils in the secondary schools in the administrative county will be smaller than the number in large city schools, it would be eminently advantageous to establish either dual (or mixed) rather than separate schools. Where separate schools are already in existence for boys and girls, it might be necessary for the general organisation of secondary education in each district to place both schools under one Governing Body.

In cases in which an endowed school may be found to be no longer able to discharge efficiently the functions of a secondary school, the County Council should seek the co-operation of the Governors in the amendment of its scheme, so as to make its endowment locally useful, perhaps by the maintenance of evening schools, or by local scholarships, or by any other suitable means.

The Committee recommend that the following be the secondary schools for the higher education of the several districts:—Grammar School, Bath; Colston's Boys' School, Stapleton, Bristol; Colston's Girls' School, Bristol; Grammar School, Bristol; Higher Grade and Secondary School, St. George, Bristol; Merchant Venturers' Technical College (Secondary School), Bristol; Grammar School, Burford, Oxon; Grammar School, Cheltenham (boys and girls); Grammar School, Cirencester (boys and girls); Endowed Schools, Gloucester (boys and girls); Secondary School, Lydney (boys and girls); Grammar School, Monmouth (boys and girls); Marling School, Stroud (boys);

Secondary School, Tewkesbury (boys); Lady Berkeley's School, Wotton-under-Edge (boys and girls).

To meet the wants of agriculturalists some means should be taken for establishing a school of agriculture (theoretical and practical), and the Agricultural Minor Committee should be requested to consider and report on the matter.

The support given by the county to those institutions selected as county secondary schools may be by the award of scholarships or by annual grant or both. Such support granted to such schools will be conditional on their maintaining a high standard of efficiency, and the Education Committee reserve to themselves the right to have all or any of them inspected.

In certain special cases the Committee may allow a scholarship to be tenable at a high-class private venture school or college (whether within or outside the county), but under no circumstances will a subsidy out of public funds be given to an educational institution carried on for private profit.

Training of Teachers.

. . . The Committee strongly recommend for adoption the following scheme as best suited to the needs of the county and as best calculated to secure a well-organised and comprehensive plan of higher education directly under the control of the Local Authority:—

1. (*a*)—By the new county scholarship system the very ablest scholars of the elementary schools will pass on before the age of 13 to the secondary school of their district and remain there up to the completion of their course, when these scholars should pass some University Matriculation Examination or one of the other examinations recognised as an equivalent by the Board of Education.

(*b*)—From among the scholars who have so qualified the County Education Committee may select students to become teachers. These students on attaining the age of 16 should either be apprenticed as pupil-teachers for a period of two years, receiving meanwhile instruction at a Pupil-Teachers' Centre, or the period of apprenticeship might be omitted altogether and the scholars might continue their education at a recognised secondary school until the age of 18. Their ranks would, it is to be hoped, be also recruited from the general body of pupils in the secondary schools. During these two years some part (a minimum and maximum part to be fixed) would be spent in certain selected elementary schools; the remainder and greater part of the time would be given to study. The time spent in the elementary school should be mainly for the purpose of obtaining a knowledge of the working of such schools and of the art of teaching. Of these students, a certain proportion would doubtless pass, during these two years, some intermediate university examination, but it should not be considered necessary that by any means every student should work along university lines. A discretion should be left in such a matter to the principal of the secondary school.

2. From among those students who have reached the age of 18 a certain number of those whose abilities justify such a course should pass on to a recognised training college. The ranks of these students, up to a certain statutory number (to be fixed), would doubtless be recruited from students from various educational institutions in the county who had qualified for entrance nto a training college. Provision should be made at a county day training college at Cheltenham for training students in the art of teaching. Some students might be reading for their final degree examination, but neither this course of study nor still less preparation for a Matriculation or Intermediate

Examination should be the main aim of the college. Practical training in the art of teaching can only be given when there is a group of schools with students of many kinds in them under tuition, and when the whole plan of instruction can be directed by one mind regulating the relation to each other of the various departments. It has to be borne in mind that when such a college has been once established, the Board of Education, especially under its new Regulations, defrays nearly the whole current expenditure by its grants.

When once a group of schools, such as that known at present as the Cheltenham Grammar School, has been co-ordinated with its day schools for boys and girls, with the first-rate provision which is about to be made for science and art teaching, and with an extensive system of evening classes both in the town of Cheltenham and in the country districts round, the cost of establishing a thoroughly good training college for teachers, with abundant opportunities for practice in the art of teaching within the group of schools and in certain selected elementary schools near (by agreement with the Cheltenham Authority), would be but small. This college, in pursuance of the terms of the Regulations for the Training of Teachers (Article 112), would be affiliated to one of the universities.

Technological Instruction.

It has been laid down as a general principle that a sound secondary education should precede specialised work. Certain technological classes adapted to the needs of the locality for those who have received a secondary education might well be established at some of our secondary schools. For example, it would appear desirable that classes should be held at Stroud suitable for those who would be engaged in textile industries; that classes in mining and forestry should be established at Lydney, and in agriculture in certain other parts of the county. It will also doubtless be found possible from time to time to set up certain technological classes in other subjects at the secondary schools.

In addition to the students so provided for, there will be at times students who will give evidence of such ability in various departments of technology as to warrant special expenditure on their behalf. It is not proposed, seeing that such students would not be numerous, to endeavour to supply their wants at the secondary schools situated within the administrative county. Their needs could be much more effectively met by an arrangement between the County Education Committee and institutions giving instruction of the kind required. Other cases might be dealt with, as they have been in the past, by providing scholarships at some of the large technological schools of the country.

Evening Schools.

Two classes of students have to be considered. (1) There are those who leave the elementary (or other) schools and whose general education is not sufficiently advanced to enable them, without supplementary training, to profit by advanced or technical classes. For such there must be, at least for some time, classes of a preliminary character. It is most desirable (*a*) that such classes should be well filled and that employers of labour should encourage their younger employés to take full advantage of them, (*b*) that they should be well organised and well taught and (*c*) that the students should be under such supervision from the secondary school of the district that they may be passed on as soon as they

are sufficiently prepared to the advanced evening classes held under the authority of the Local Higher Education Committees which it is proposed to appoint.

(2) There are those who have received a sound general secondary education, but who being employed in the day-time cannot continue their studies except in the evening. For these there should be adequate but not extravagant provision. Experience has shown that such classes can be very satisfactorily conducted under the auspices of the Local Higher Education Committees. It is, however, important that in the smaller towns and larger villages Local Committees should be formed to watch over the inception and development of all the evening classes in their district, to stimulate local enthusiasm and interest and to make recommendations to the Local Higher Education Committee.

The Local Education Authority would exercise supervision over these classes through the Local Higher Education Committee, and by such inspection as may be deemed desirable.

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THE Association for the Promotion of Technical (including Commercial and Agricultural) Education aims at encouraging those educational reforms which will improve the capacity, in a broad sense, of all those upon whom our industries depend. Its object is not to interfere with the teaching of trades in workshops, or with the industrial and commercial training in the manufactory and in the warehouse. It desires (1) to develop increased general dexterity of hand and eye among the young, which may be especially useful to those who have to earn their own livelihood, and at the same time improve rather than hinder their general education; (2) to bring about more widespread and thorough knowledge of those principles of science and art which underlie much of the industrial work of the nation; (3) to encourage better secondary instruction generally, which will include more effective teaching of foreign languages and science for those who have to guide our commercial relations abroad, and to develop our industries at home. With these and similar objects in view, the Association desires to bring about an improved organisation of the Industrial Education of both sexes in accordance with the needs of various districts. One of its main purposes is to stimulate public opinion by encouraging consultation and discussion between the representatives of various localities on the subject generally, and on any legislation that may be proposed, by conferences and meetings in various towns and villages; and by the diffusion of information in a cheap and popular form. The Association wishes, where it can do so, to make better known the work of existing institutions, and to act in harmony with all those who are interested in bringing about more effective progress in a matter of the utmost importance to the country.

The Association does not pledge itself in detail to all the opinions expressed or quoted in its publications, but aims at providing by their means information worthy of careful consideration.

QUEEN ELIZABETH'S GRAMMAR SCHOOL, FAVERSHAM. (*See page* 394.)

[By kind permission of Mr George M. Arnold, Chairman of Kent Education Committee.]

I.—EDITORIAL NOTES.

We very much regret to announce that the Scotch Education Bill has been abandoned, at any rate for the present session. Instead of being able to print the full text of the Education (Scotland) Act, 1904, we have to record another abortive attempt on the part of Parliament to deal with the important issues involved. Among the various sections of Scottish educationalists there is a keen feeling of despondency. They discern a levity in the treatment of the subject and a lack of perspective in our rulers which bode ill for the future. Never did a Bill seem to obtain a more favourable reception from Parliament and the country. It was received with general approval, even applause; for it appeared to contain the elements of an excellent measure of reform. Subsequent events somewhat damped this ardour, interest gradually declined, until, at the end, there was left little enthusiasm and, except in the case of teachers, a sentiment akin to indifference.

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One of the many reflections that occur to those who have followed closely the progress of the measure makes rather a hard saying. It is this: the chief cause of the failure of the Bill was the extreme desire of the Secretary for Scotland to conciliate critics and to reconcile opposing interests. He attempted the impossible. Had he been less complaisant, possibly the position would have been less difficult than eventually it became. The general impression, whether right or wrong, is that, apart from Parliamentary exigencies, the chief reason for the withdrawal of the Bill was the position created by the embodiment in it, during the Committee stage, of a proposal to make valuation *and population* the basis of taxation for its purposes. This was an attempt to reconcile the financial interests of urban and rural areas. The principle, not wholly novel, as it has been applied in the distribution of Imperial grants to Local Authorities in certain cases, gave pause to many persons of widely different political views. Such a radical alteration in financial methods must, it was argued, be discussed and determined on its own merits, and not established as a precedent, in an incidental sort of way, in a measure designed for altogether different purposes. The strength of this feeling is thought to have deterred the Government from proceeding further. A second reflection is that the views held by different sections

of educationalists and administrators in regard to the reform of Scotch education are in part irreconcilable, and the fact must be recognised by the Minister in charge of the measure when it is again brought forward. On many points compromise is possible, and the only satisfactory, or, at any rate, least unsatisfactory, way of dealing with them. But others are quite incompatible with one another, and any attempt at reconciliation is foredoomed to failure. Among these may be cited the unit of area, the destination of grants, the position of the Central Department.

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We trust we may look forward to next session with confidence. It is our duty to insist on the supreme importance of education, and to remind Parliament that it is verily trifling with vital national interests if it burkes the subject. An Act of Parliament is urgently necessary in order to remove obstacles and to co-ordinate effort: it indicates merely the fresh starting point of educational progress. Every year that it is delayed renders the situation more serious, and increases the leeway that has to be made up. The Government of the day must put the Bill in the forefront of their programme, and Parliament must prepare itself to discuss the measure at whatever sacrifice of time may be necessary. Scotland is entitled to her fair share of the time of Parliament, and she claims this share. The educationalist knows no politics, and the nation will hold both sides equally responsible for such a fiasco as has just been witnessed. One crumb of consolation we have—there is still another year in which to thresh out the knotty points. Public opinion has been greatly educated during the past six months. There is material of a permanent character on which further study of the problems involved may be based.* The blame will ultimately rest with the Scotch people if they do not attain to some degree of unanimity on the main features of the desired reform, and make their demand of Government and Parliament in terms that will not admit of misunderstanding nor brook further delay.

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At a time when radical changes in educational organisation in Scotland are contemplated, it is very essential that the conditions already obtaining throughout the whole field of Scottish education

* In this regard we would refer our readers to literature dealing with the present position of affairs, *e.g.*, "Short Studies on Education in Scotland," by John Clarke (Aberdeen); "Scottish Educational Reform," by Dr. Douglas, M.P., and Prof. Jones (Glasgow).

should be well understood. With this view the Scotch Education Department have issued "A Selection of Circular Letters of the Department, 1898-1904, with Explanatory Memorandum." In the Prefatory Note, written by the Secretary for Scotland himself (Rt. Hon. A. Graham Murray), a well-merited tribute is given to the late Secretary, Lord Balfour of Burleigh, the results of whose administration must remain as a contribution of great and permanent value to education. There is much in the Memorandum which deserves close attention. It is divided into five sections, dealing respectively with the subjects of elementary, intermediate and secondary education, continuation classes and the training of teachers, and indicates that the general policy pursued by the Scotch Education Department has been upon right lines. For instance, the encouragement given to central technical institutions so as to relieve them of elementary work in order to develop their advanced instruction to the highest possible point, or, in other words, to convert them into technical universities, is of the greatest importance, and would be most advantageous if more vigorously pressed throughout the whole country.

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The remarks in the Memorandum upon the rapid development of certain branches of rural instruction for teachers are of peculiar interest in view of the successful work accomplished in England. The Scotch Code of 1899 made drawing and nature-knowledge part of the elementary curriculum, and Local Authorities might establish such teachers' classes upon guaranteeing only one-fourth of the actual expenditure, the remainder (excluding fees) being provided from the Department's grant. The success of these classes has surpassed expectation. They have been established at convenient centres all over Scotland, and attended by thousands of teachers, many of whom travel great distances. No recent expenditure on education has brought so speedy a return in the form of improved school work. These subjects, practically unknown in many schools five years ago, are now taught with adequate knowledge and on sound methods in the great majority of the schools.

The general principles which have guided the policy of the Scotch Education Department are summarised in the Memorandum under three heads, which may be more briefly described here as—(1) to establish three distinct grades of day schools; (2) to maintain the national characteristic of dual control, *i.e.*, central supervision and local management; (3) to test the efficiency of

schools by inspection. Finally, the usefulness and the permanent value of the Memorandum are enhanced by a diagram or conspectus illustrating the whole of the educational organisation in Scotland.

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We publish on pp. 292-302, an article on "The Present Aspect of Agricultural Education." It will be seen that the writer has set himself to show how necessary it is for the due advancement of agricultural education in England and Wales that there should be one Central Authority for educational purposes, and that this reform should be promptly secured. It will be remembered that the Agricultural Education Committee placed this object in the forefront of their programme. Their first resolution is as follows:—"That, in view of the importance of concentrating "the control of agricultural and rural education in the hands of "one Government Department, it is expedient that all the "educational work of the Board of Agriculture should be "transferred to the new Board of Education." It seems to us that the time which has elapsed since the Agricultural Education Committee passed the foregoing resolution—viz., the autumn of 1899—has demonstrated the soundness of the policy then adopted. For not only have the Committee kept this important object steadily in view but their activities have brought about many reforms which, in their turn, serve to emphasise the need of one all-embracing Board of Education. We heartily approve the aim of our contributor, and we commend his article to the thoughtful consideration of our readers.

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We omitted to refer in our last issue to the important Departmental Committee appointed by Lord Londonderry to inquire into the working of the Royal College of Science. The terms of reference were published in *The Times*. They are:—"To "inquire into the present working of the Royal College of Science, "including the School of Mines; to consider in what way the staff, "together with the buildings and appliances now in occupation or "in course of construction, may be utilised to the fullest extent for "the promotion of higher scientific studies in connection with the "work of existing or projected institutions for instruction of the "same character in the Metropolis or elsewhere; and to report on "any changes which may be desirable in order to carry out such "recommendations as they may make." Sir Francis Mowatt, G.C.B., is chairman of the Committee, and among the members,

who, it is understood, represent very different interests, are Sir William White, Mr. Sidney Webb, Sir Philip Magnus, Sir Arthur Rücker and Mr. Ogilvie. Having regard to the statement made by Sir William Anson last autumn, we may look to the Committee to make suggestions which will prepare the way for the establishment in London, connected possibly with the university, of a great technological institution of the Charlottenburg type, as advocated by Lord Rosebery and Mr. Haldane, towards the maintenance of which the London County Council conditionally promised an annual grant of £20,000.

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Under the auspices of the British Association, a large deputation representative of all the universities and many of the university colleges, including also several members of both Houses of Parliament, waited upon the Prime Minister (the Rt. Hon. Arthur J. Balfour, M.P.) and the Chancellor of the Exchequer (the Rt. Hon. Austen Chamberlain, M.P.) on Friday, the 16th July. The deputation was briefly introduced by Sir Norman Lockyer, President of the British Association, who referred (1) to the statement which had been prepared by a responsible Committee of the British Association embodying their views in regard to the necessity of a new departure on the part of the Government in the direction of State endowment of the universities, and (2) to the action of other countries in this department of State aid. The subsequent speakers included Prof. Pelham (Hebdomadal Council, Oxford), Dr. Chase (Vice-Chancellor, Cambridge University), the Rt. Hon. J. Chamberlain, M.P., Sir William White, Sir William Ramsay, Sir Richard Jebb, M.P., Sir Henry Roscoe, Mr. Alfred Mosely, C.M.G., Mr. C. Bill, M.P., and they urged with unanimity the pressing claims of the universities to truly liberal consideration.

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The aim of the deputation was admirably conveyed by Professor Pelham, who stated it to be "to impress upon the Government "certain facts, long recognised abroad and gradually winning "their way to recognition at home. The facts that there was "such a thing as knowledge; that it was a thing worth having "for nations as well as individuals; and that we could not have it "without paying for it." The relations of research to our national welfare were emphasised by Sir Henry Roscoe and promptly recognised by the Premier, who, in his response, admitted also the great financial need in connection with both the new and

the old universities. But it was left for the Chancellor of the Exchequer to announce the financial concession which the Government had in store for the university authorities. This simply amounted to the prospect of a possible doubling, next year, of the current year's grants to the university colleges. Having regard to the recognised fact that the supply of facilities creates the demand for education, it is obvious that educationalists must incessantly impress upon philanthropists and Ministers the hopelessness of national progression in the absence of those propelling forces so lavishly provided by other countries.

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The new Code has been in the hands of organisers and administrators for some time, and its provisions, which are now in operation, have doubtless been well examined. We desire to commend the improvements in the design and structure of the Code and to recognise the important changes introduced into its substance. It is obvious that in no sense is a "cut-and-dried" system of education to be imposed in future upon the schools. On the other hand, every reasonable means for freedom will be given to Local Education Authorities to carry out reforms and experiments with the approval of the inspectors, as representing the Central Authority: the initiative of the school managers and of the teachers themselves will be encouraged also. Beyond this, there is a distinct aim, clearly expressed, to make the Code the popular exponent of the primary education system of the country, so as to impress the truth, as yet only half acquired, that the schools are really the rightful inheritance of both the parents and the scholars. The Code now deals with public elementary and higher elementary schools only, the power to train all teachers having been assigned by the Act of 1902 to the domain of higher education; thus, the number of Articles is reduced from 133 to 57. The "Revised Instructions," issued last in 1902, are withdrawn; but we may look forward to the issue of "a companion volume to the Code" dealing suggestively with the educational aspects of school life. The Introduction really gives an excellent description of the true purpose of the public elementary school.

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The most important changes of substance, which are set out in Mr. Morant's Prefatory Memorandum to the Code, may be very briefly summarised as follow:—(1) the adoption of a school curriculum "as a connected and coherent whole"; (2) the consequent abandonment of the specific method of delimitation

in respect of subjects, methods and plans of teaching for infants and for older scholars respectively; (3) the raising of the standard of classification of the teaching staff of the schools—this to include the disappearance of probationers; (4) further safeguards against the employment of the teachers in extraneous or non-scholastic duties; (5) greater latitude in the methods of testing by examination (oral or written) the work of the school as a whole and of individual scholars; (6) the differentiation of grant upon the basis of age-grades with a view to the prolongation of the later years of school life—this change to become fully operative after 31st July, 1905. Some anxiety has already been shown that Local Education Authorities, especially those administering rural areas, may *become* involved in financial loss by the operation of Article 31 of the Code, which embodies the vital change just noted in point *(6)*. But the view expressed in the House of Commons on the 6th June last, by Sir William Anson, gives some assurance that this *may not* prove to be the case in the long run throughout the whole country, and even some Local Authorities forecast a financial gain by the new Code. The Board of Education have now, however, promised to revert, for a year or two, to the system hitherto in force, and have issued a Minute, dated 7th July, 1904, embodying a new Article revising the grants.

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Following upon the issue of the new Code come the new Regulations for Secondary Schools for 1904-5. These latter are infused with the same broad spirit of educational statesmanship, and, in their very important sphere, should contribute much towards building up an organised system of national education. Many Local Education Authorities are already considering the needs of their areas and taking steps initiatory to the provision and organisation of secondary schools. It is, therefore, most essential that the general policy of the Central Authority and their relations with all local bodies concerned with both the internal and external administration of these schools should be clearly defined at the present stage of affairs under Part II. of the Education Act. The declarations upon these matters made in the Regulations of the Board of Education will, we hope, thus enable the many new and varied schemes, which, as the field of operation is examined, are seen to be urgently required in all parts of the country, to be properly and more easily co-ordinated with the existing facilities; so that a coherent plan of secondary education may be established, with due regard to a national system, in each district of suitable

size. Further, the Regulations have been subjected to an ample process of simplification by arrangement under the main headings of (1) courses of instruction, (2) conditions of recognition and (3) grants; and their purpose has been fully affirmed, as in the case of the Code, by Mr. Morant's excellent Prefatory Memorandum.

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This Memorandum opens with a brief statement of the evolution of the day secondary school from the sporadic science class. It then proceeds to point out, on the one hand, the impossibility of defining the term "secondary education," but, on the other hand, the necessity for defining, for purposes of administration, the term "secondary school." This latter "will be held to include "any day or boarding school which offers to each of its scholars, "up to and beyond the age of 16, a general education, physical, "mental and moral, given through a complete graded course of "instruction of wider scope and more advanced degree than that "given in elementary schools." This instruction must be (*a*) general, giving exercise and development to the whole of the faculties; (*b*) complete, leading to a definite standard of acquirement; (*c*) graded, and, therefore, always progressive in its various branches. The course must cover four years—the minimum period set for a secondary school to provide—without excessive or premature specialisation, but with freedom to frame curricula of varying kinds suited to local conditions. The instruction grants are to range from 40s. to 100s. per scholar, and are graded according to the years of attendance and applicable to every type of school. As regards the purpose of these grants, the Memorandum declares that "the uniform scale of aid given is "designed to give impartial encouragement to all well-considered "local effort towards developing a general system of secondary "schools through many channels and in varying directions. Much "of the work that has to be done in establishing such a system is "experimental, and *will have to be reconsidered in the light of its "results*. The secondary schools are, in a sense, the educational "laboratory of the nation . . . ." The italics are ours. An official statement of this kind is rather significant in view of the fact that private schools are still debarred from receiving aid under the Regulations.

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As affecting the power of grant-earning, a most important provision is instituted that the recognition of the Board will be withheld if "a school, after . . . . working for a sufficient

"time . . . . to allow the normal development of the higher "Forms or classes, fails to carry an adequate proportion of the "scholars up to the third and fourth years of the complete course." In addition to the ordinary grant offered to all schools, special grants, which may double the ordinary grant, are to be given to those hitherto known as Division A schools, but the Regulations are so modified as to include the raising of the age of scholars commencing the course to 13 years. There is also a special course, for the third and fourth years, to be preceded by a general course, for scholars of 15 years of age, applicable to schools which provide "often practically the only available source of higher "education for the neighbourhood." The design of the Regulations to give scope for the co-education of boys and girls in mixed or dual schools is emphasised in the Memorandum, which states that, generally, "it is left to school authorities to consider how far the "same kind of school curriculum is possible or desirable for girls "as for boys, and to frame curricula . . . . in which due "regard is had to the differences inherent in the nature of the two "sexes, to the different aims towards which their school life "should be adjusted, and to the effect on character of the exercise "of the various faculties during the critical years of life."

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The Memorandum concludes with some trenchant words upon one of the most important matters of school organisation and administration, namely, the relations that should exist between (one and another and all of) the Local and Central Authorities, the Governing Bodies, the head-masters and mistresses and the school staff. The following final paragraph upon the matter indicates the attitude of the Board of Education, as explained by Mr. Morant:—"In the case of all schools alike the Board attach "importance to direct communication with the Governing Body, "and to preserving for the Governing Body as much responsibility, "independence and freedom of action as is consistent with effective "control of educational policy and educational provision by the "Local Authority in its own area and by the Central Authority in "all areas." This view corroborates that which we ourselves have intimated might be the general effect of the Regulations upon the organisation of secondary education. And, read in the light of Clause 17 of the Regulations, there seems to be no reason to fear that the power of effective control over the schools hitherto exercised by Local Education Authorities by reason of grants, representation and so forth will be weakened.

There are certain modifications and revisions introduced into the Regulations upon specific points which may be said to represent an advance in educational methods over the superseded Regulations of 1903-4. Among these it may be noted that—the lower classes in the school must be preparatory to the secondary school course; provision may be made, after the completion of the course, for specialisation in a subject or group of subjects; there is a prohibition of scholars in the first and second years from usually taking external examinations, except in certain circumstances (see Clause 9 of the Regulations); the suitability of the school fees is to be assured; and the standard of the qualifying attendance is raised. The Appendices to the Regulations relate to (1) the optional inspection of schools under the Board of Education Act, 1899; (2) examinations in science and art; and (3) "Local Science and Art Scholarships," towards the establishment of which rate-contributions under Part II. of the Act of 1902 are accepted in lieu of those previously made under the late Technical Instruction Acts—a matter to which we drew special attention at the time of the introduction of the regulation by the Board of Education.*

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The changes lately introduced, or introduced for the first time, in the Regulations for Training Colleges are fitly summed up in Mr. Morant's Prefatory Memorandum. They are as follow:—

(1) The Exchequer grants in respect of day students who reside in approved hostels will be on the same scale as the grants made in respect of residential students;

(2) Much greater liberty is given in the conditions under which students who have reached a satisfactory standard of general education may obtain a one-year's course to be mainly devoted to professional training;

(3) A fixed grant of £3 per student per annum is substituted for the variable science and drawing grants hitherto paid to training colleges;

(4) A new type of training college may be recognised, which, though not in connection with a university or university college, need not on that account be a residential college as hitherto.

The arrangements for the inspection of the colleges and for the examination of students are considerably modified, a great variety of examinations alternative to the examination held by the Board of Education being now recognised. But the privilege of taking

* See "The Record," Vol. XI., January, 1902, p. 17.

those examinations and of exemption from the Board's examination will in future only be granted to such colleges as fulfil certain important educational conditions. Special regard will be given to the cases of students admitted to colleges before the issue of the new Regulations.

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The Regulations for Evening Schools, Technical Institutions and Schools of Art and Art Classes, which have just appeared, show the wise intention of the Board of Education to raise the standard of evening teaching, to adopt it as fully as possible to the varying needs of different localities, and to diminish the ill-effects of examination, whilst recognising their value within necessary limits. The closer union of the teaching of science, art and technology is one of the advantages which have followed from the re-organisation of the Board, and it is satisfactory to note the due recognition which the Regulations give to the work of the City and Guilds Institute, which continues under the ægis of the Board to discharge the functions of a National Department of Technology. As in the cases of the new Code and the Regulations for Secondary Schools and for the Training of Teachers, the Memorandum prefixed to the document under review shows clearly enough that the Board of Education are concerned not only with the organisation of schools, and with the conditions under which grants may be gained, but also with the system of education to be adopted. Indeed, the true reforming spirit associated with Mr. Morant's activities is very helpful and encouraging.

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The Executive Council of the County Councils Association have amplified their proposals respecting courses in training colleges for teachers. The gist of these being largely embodied in the new Regulations for the Training of Teachers and for the Examination of Teachers in Training Colleges, we briefly recite them. As regards a one-year's course, restricted entirely to technical training for the profession, admission being given to persons who have passed the London Matriculation, Oxford or Cambridge Senior Local, or some Examination of a similar standard, the following points are considered essential:—

(1) The minimum age for admission should be 18:

(2) Candidates should have passed in arithmetic, English grammar and literature and history, general geography, one

foreign language, at least one branch of natural science, drawing, a satisfactory test in music, and, in the case of men, mathematics, and, in that of women, needlework:

(3) In the college students should attend courses of lectures on the history and theory of education, on school management (including hygiene) and methods of teaching in general; give lessons to classes of children of ordinary school age under proper supervision; be present at and take part in the criticism of lessons given by other students; go through a proper course in physical exercises with special reference to the best methods of teaching; have abundant practice in black-board drawing and in different ways of preparing diagrams and class illustrations, and also in science, and be taught how to make and use simple apparatus and to perform simple experiments for school children; and, wherever possible, receive training in woodwork:

(4) Teachers so trained for one year only should be entitled to their certificates after 18 months' practice in schools to the satisfaction of H.M. Inspector.

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As regards shorter courses for untrained teachers, it is considered that all Local Education Authorities should provide facilities for training carefully-selected teachers in educational methods. In addition to the ordinary holiday courses and Saturday classes, there might be, *e.g.*, a three-months' course in such subjects as nature-study, black-board drawing, the preparation and use of diagrams, class instruction, cookery, manual instruction and kindergarten. The ordinary salaries of teachers might be paid during attendance, their places at the schools being filled from a staff of supply teachers.

With reference to the new Regulations for Pupil-Teachers, the following considerations submitted by the Council are receiving the attention of the Board of Education:—(1) although the special difficulties of rural-areas are recognised on page 34, no provision is made to meet them; (2) the payment of all grants should be made to the Local Education Authority giving the instruction in the central class, and not as provided in Article 28 (*b*).

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In dealing with the general problem of the training of teachers in our last volume (p. 400), we intimated that Local Education Authorities might find it necessary to re-cast their scholarship

schemes, especially expanding them so as to provide training for suitable candidates for the teaching profession. Considerable preparation in these directions has already been made, and on pp. 324-57 we devote a special Section to a selection of the scholarship schemes adopted by Authorities in typical districts. One of the most important tasks in local organisation is undoubtedly the institution of a complete scholarship system, governed by careful regulations as to the standard and periods of competitions and examinations. There are many questions needing very judicious treatment if such a system is to work *well*. For instance, a scholarship system must not tend to warp, but should try to adapt itself to, the curricula of schools. Here *is truly* a great difficulty, as a certain amount of uniformity must predominate in the scholarship regulations. Again, there is the *residential* qualification—a statutory condition under the late Technical Instruction Acts, and one to which Local Education Authorities seem inclined to adhere. This might not only cause hardship to the scholars but might mar the designs of the scholarship schemes. It would be well, therefore, that there should be some co-operation between the Authorities in different areas in the formulation of, and in the subsequent procedure under their scholarship regulations. The recommendation recorded on p. 290 as being passed at the last meeting of the Association of Directors and Secretaries for Education may be noted in this connection. In the special matter of the training of pupil-teachers, the joint action of the Manchester and Salford Education Committees deserves notice. These two County Boroughs are providing, on similar conditions, 400 bursaries for intending pupil-teachers (see pp. 333-5); and no restrictions are laid down as to the residence of these bursary candidates, although care is taken to secure their services when trained.

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With reference to those conditions that seem essential to a successful scholarship system, we publish on pp. 386-7 the views of a large section of the teaching profession in this regard. They are suggestive as coming from those who will be intimately associated with future scholarship candidates. Other conditions would well repay reflection by organisers at the present time. For instance, there are the general principles observed in the development of the scholarship scheme of the late Technical Education Board of the London County Council, which were

worked out with great care and have proved to be a great success*; also those more recently advocated by Dr. R. P. Scott in regard to a proposed scheme of junior county scholarships for London.† The following, among other essential conditions, seem to secure considerable unanimity of opinion or success in practice:—

(1) The careful selection of candidates for certain scholarships by teachers, examiners and, possibly, managers of schools jointly;

(2) The earlier, rather than the later, transference of pupils from elementary schools, and the optional tenure of their scholarships for four years;

(3) The annual increase in the value of scholarships held by the same scholars;

(4) The provision of opportunities for terminating the scholarships to meet the natural capacities or bents of the scholars;

(5) A combined written and oral test for examination;

(6) Only part of the scholarships offered to be subject to a limit of income for the parents of candidates;

(7) The distribution of certificates and honours to winners of scholarships as an annual public function.

In conclusion, we would repeat, with renewed emphasis, what we said on a previous occasion, that Local Education Authorities should not aim so much at building up a huge scholarship system, but should rather, in the award, renewal and extension of scholarships exercise the greatest care in regard to the capabilities, bias and destinies of the scholars.

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We would direct special attention to the scheme, published on pp. 379-83, for instruction in gardening in connection with public elementary schools which is now in full operation in Staffordshire. It will be seen that the scheme is to be entirely financed by the Education Committee, the obtaining of the necessary land devolving upon the managers of schools. Particular emphasis is laid upon the recognition of properly qualified instructors only. It is most important that this should be so; for, while these teachers must, of course, be recognised by the

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* See paper by Dr. C. W. Kimmins, M.A., on "The Educational Ladder" in *The Record*, Vol. X., October, 1901, pp. 401 and 473.

† See article by Dr. R. P. Scott, M.A., on "Junior County Scholarships: a proposed Scheme for London" in *The School World*, March, 1904; reprinted as a pamphlet by John Bale, Sons and Danielsson Ltd., 83-91 Great Tichfield Street, Oxford Street, W.; price, sixpence.

Board of Education, no definite standard of qualification for them is set by the Code as there is for teachers of other special grant-earning subjects. From the time when the Agricultural Education Committee first advocated the cause of rural instruction under the Code (*i.e.*, in 1899), and, particularly, that *practical work* should be given *on plots of ground attached to the schools*, there has been a rapid development in the teaching of gardening, among other subjects. In fact, the number of schools and scholars taking it up has increased more than fourfold, *i.e.*, to 378 and 5,486 respectively. It is obvious that there is almost unlimited scope for further expansion, and it is admitted that there has been a great beneficial effect upon the scholars. We trust, therefore, that all Education Committees will gradually come to organise, as judiciously as the Staffordshire Committee, similar instruction within their areas.

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In our Review Section (pp. 388-96) we deal with the revised scheme of higher education which is being put into operation for the current year by the Kent Education Committee. This scheme demands special attention because of the method of adjustment of the respective claims of, and of the system of organisation within, the urban and rural districts. Another useful proposal, not mentioned in the scheme, is being carried out with the view of preventing overlapping in certain urban districts. A Joint Committee of 18 members is to be formed from representatives of the three Town Councils of Chatham, Gillingham and Rochester, with nominees of the County Council. This body takes the place of the old Technical Education Committees, and assumes the entire charge of higher education in the area covered by the three Local Authorities. The urban districts will, too, figure prominently in connection with the provision of public secondary education, for the existing technical institutes therein, with their partially-used buildings, offer the facilities needed for day instruction. This fortunate position is largely due to the past work of the late Technical Education Committee, whose total grants towards buildings, apparatus, equipment, teachers' salaries, etc., at 30 technical institutes and secondary schools (excluding the Agricultural and Horticultural Colleges at Wye and Swanley respectively) have amounted to nearly £35,000. We are indebted to the courtesy of Mr. George M. Arnold, the Chairman of the Kent Education Committee, for the loan of the illustrations of the typical institutions in the county which appear in our impression.

The Register of Teachers for Secondary Schools, compiled by the Editor of "The Schoolmaster's Year Book and Directory,"* should prove to be a very useful little work to all who are interested in the registration movement. The annual publication of the Register or Registers, which appears to be clearly provided by Regulation 14 of the Schedule to the original Order in Council, has not yet been undertaken by the Board of Education. This fact enhances the value of the unofficial Register, which is accompanied by an Introductory Note discussing many interesting points connected with the question of registration. It opens with a brief review of the attempts to obtain Parliamentary sanction to the registration of teachers, and deals with—the present position under the Regulations and the actual composition of the Register; the desirability, or otherwise, of abolishing the division of the Register into two Columns and of framing a single Register for Teachers, as advocated by the Royal Commission on Secondary Education; generally, the recognition of secondary schools by the Board of Education, and, in particular, the necessity for the publication of a list of recognised schools; the modification of the present financial arrangements of the Registration Council; the constitution of the Council, which may be open to revision in March next; the reluctance of a large proportion of masters in public schools to be registered; and the effect of the Regulations as a stimulus to secure professional training.

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The report of the Teachers' Registration Council for 1903, although dated 13th February, was not issued until after the appearance of the work just noticed, at the end of June. Therein we have the explanation of the non-publication of the Teachers' Register—the most important point, perhaps, in the whole report. It is entirely a question of finance, the decisions of the Treasury being adverse to any expenditure whatever. Upon this point the Registration Council speak in no uncertain terms. "The result "... must be ... to restrict the work which they "have been appointed to perform" and, while "the publication of "a Register is virtually complied with by declaring it open to the "public ... its publication by means of printing is the

* Register of Teachers for Secondary Schools, being the List of Teachers registered in Column B of the Teachers' Register, complete to March 31st, 1904. compiled from Official Records by the Editor of "The Schoolmaster's Year Book and Directory" (London: Swan, Sonnenschein and Co., Ltd., 2s. nett).

"only effective publication, and was contemplated both in the "Board of Education Act and in the Registration Order itself." Again, "the Council submit that a publication of the Teachers' "Register in the prescribed form must be delayed until permission to "print has been granted"; but they "agree that no good purpose "would be met by printing the Register on the lines laid down "by the Order in Council. The enormous preponderance of the "names on Column A (about 80,000) over those on Column B "(about 5,000) would render it practically useless to secondary "teachers and to Local Authorities for purposes of reference, "whilst elementary teachers would attach no value whatever to a "printed publication which adds nothing to the status already "conferred on them by the certificate of the Board." The Council also offer observations upon other difficulties they have experienced in carrying out the Regulations. These are in connection with the definition of the term "head-master"; the indefinite postponement of the formation of Supplemental Registers; the position of Kindergarten teachers; and the policy of the Council in regard to teachers in training colleges and at universities—a policy which, we understand, has since undergone revision.

* * * * * *

The recent issue of the Report (for 1903) and of the Rules and Programme of Examinations (for 1905) of the Intermediate Education Board for Ireland again directs attention to the urgent necessity for inaugurating a system of permanent inspection for the Irish intermediate schools. We referred to this matter last year, but the question still remains in abeyance, in spite of the strenuous efforts made by the Board themselves to secure what they rightly term "the expressed intention of the Legislature," by discontinuing a system of payment on examination results unanimously condemned on educational grounds. The Board's account of their negotiations to obtain the reform from the Government shows clearly enough that, as in the matter of the Irish Equivalent Grant, it is merely an instance of Treasury domination. The following single passage from the Board's Report suffices to fitly describe a strong case:— "That the distribution of the school grant by the application of a "single test is obviously the most economical system; that before "the Act of 1900 the sole test of efficiency . . . . was a "public examination of students; that this Statute was passed "mainly . . . . to distribute a portion of the school grant as "the result of an inspection of schools, and that the Rules provide "for payment upon this basis; but that the operation of the Act

" and Rules has been suspended in consequence of the refusal of " the Government to give them practical effect by the establishment " of a system of inspection," or " by supplying the Board with " permanent inspectors." As regards the changes in the Rules to come into operation in September, 1904, one of the chief is that in all grades the subject of experimental and practical science, as prescribed by the Board of Agriculture and Technical Instruction, will be compulsory, except in those smaller schools where the necessary equipment and qualified teachers are absent.

* * * * * *

A general meeting of the Association of Directors and Secretaries for Education was held at St. John's College, Oxford, on Friday, the 8th July, 1904. The Chairman, Mr. P. Elford (Oxfordshire), presided, and 31 members were present.—Messrs. W. Cooper (Derby) and N. Taylor (Blackburn) were elected members.—The Association urged that payment of all Government grants for elementary education should be made on the basis of the total average attendance of the schools within the area of each Local Education Authority, and calculated entirely apart from H.M. inspectors' reports on the various schools.—Resolutions were passed in regard to the new Regulations for Secondary Schools to the effect that important changes should not be introduced without at least one year's notice, and that the average age of a class commencing the " special course " at the beginning of the third year should be 14 instead of 15 (see par. 13 of the Regulations): the serious nature of the decline in grants to be paid to secondary schools was also emphasised.—The difficulties associated with the variety of practice respecting the residential qualification of candidates for county scholarships were considered, and it was recommended that when a scholar has been elected to a scholarship he shall not cease to benefit from it on account of his removal, or that of his parents, beyond the area of the Authority granting it.—The next meeting of the Association will be held in London on the 28th October.

* * * * * *

The following additions to and revisions of the list of the chief educational officials appointed in counties and county boroughs under the Education Act, 1902, published in " The Record," January/March, 1904, have been noted since our last issue:—

BLACKBURN .....*Principal of Technical School and Educational Adviser*: Mr. A. Gow, B.A., B.Sc., F.C.S.

COVENTRY .....*Director of Education*: Mr. F. Horner, B.A., Education Offices, High Street.

HUDDERSFIELD .....*Principal of Municipal Technical College and Director of Education*: Mr. J. F. Hudson, M.A., B.Sc.

HUNTINGDONSHIRE..*Legal Adviser*: Mr. Percy Maule (Clerk to County Council), County Offices, Huntingdon.

ISLE OF ELY.....*Organising Secretary*: Mr. J. H. Haigh, Education Office, 18, Lower Hill Street, Wisbech.

LONDON .....*Executive Officer*: Mr. Robert Blair, M.A., B.Sc., London County Council Education Offices, Victoria Embankment, W.C.

Chief Inspector: Dr. C. W. Kimmins, M.A., ditto.

Chief Clerk: Mr. H. J. Mordaunt, ditto.

RADNORSHIRE .....*Clerk to Committee*: Mr. H. Vaughan Vaughan, County Council Offices, Llandrindod Wells.

WALSALL .....*Director and Secretary*: Mr. A. H. Whipple, M.A., B.Sc., Education Offices, Bradford Street.

WARWICKSHIRE .....*Assistant Director*: Mr. C. G. Bone, B.A., Education Office, High Street, Warwick.

* * * * * *

Pressure upon our space precludes us from dealing with—(1) the proposals submitted by the Consultative Committee to the Board of Education in regard to a system of school certificates; (2) the results of local inquiries undertaken by Education Committees into the condition of secondary schools in certain English counties (*e.g.*, Lancashire, Leicestershire, Oxfordshire and the West Riding of Yorkshire); (3) the scheme, recently approved by the Board of Education, for the establishment of a Joint Council for Agricultural Education for the three Ridings of Yorkshire; (4) suggestions as to the best methods of allocating county grants to District Committees. We hope to refer to these matters in our next issue.

II.—THE PRESENT ASPECT OF AGRICULTURAL EDUCATION IN ENGLAND AND WALES.

PRELIMINARY CONSIDERATIONS.

What is the present position of agricultural education in this country? To reply fully to such a question would necessitate the collection and the elaboration of a mass of material capable of absorbing much more space than is available in the present number of "The Record." But without venturing upon an undertaking of this extensive character, it may be well to review and to consider those conditions which constitute the existing bases for a complete organisation of agricultural education in England and Wales.

If private-venture institutions are excluded, it will be found that agricultural education is being mainly promoted by three bodies, or sets of bodies, viz.:—(1) The Board of Agriculture and Fisheries, and (2) The Board of Education—both representing the Central Authority; and (3) The County Councils*—representing the Local Authority.

With respect to the Central Authority, the Board of Agriculture and Fisheries are concerned mostly with that part of *higher* education, including technical education, practical or scientific, which is connected with agriculture and forestry, the Board being debarred, under the Board of Agriculture Act, 1889, from having anything to do with elementary schools; the powers of the Board of Education extend not only to elementary education but they cover also that educational sphere which is defined as 'other than elementary.' It should be noted here that in the department of elementary education the Board have shown their wisdom by giving special grants for such subjects as gardening and handicraft (for boys) and dairy work and household management (for girls)—these subjects obviously bearing a very close relationship to the practical processes on a farm.

As to the powers of the Local Authority, in the twin domain of elementary and 'other than elementary' education, they are conferred in full measure by the Education Act of 1902.

*In some cases, additional Local Authorities (both Statutory Local Education Authorities and others) may be contributory bodies.

THE GRAMMAR SCHOOL FOR GIRLS, MAIDSTONE. (*See page* 394.)

[By kind permission of Mr. George M. Arnold, Chairman of Kent Education Committee.]

THE GRAMMAR SCHOOL FOR GIRLS, ROCHESTER. (*See page* 394)

By kind permission of Mr George M. Arnold, Chairman of Kent Education Committee

EXISTING FACTS.

Proceeding now from the general to the particular, it will be found that the work of the different Authorities, so far as agriculture (including horticulture) is concerned, is as follows:—

THE BOARD OF AGRICULTURE AND FISHERIES.—The work of this Board, as shown by their Annual Reports, has consisted, mainly, in aiding financially the various colleges and institutions supplying the higher agricultural education—thus offering facilities which individual counties and groups of counties do not fail to utilise. This policy, which, with the limited resources at their disposal, is probably the best that the Board could pursue, may be found embodied in many of the Annual Reports of the Board; but the way in which it is set out in the Annual Report for the year 1894-5 is so clear that we venture to quote freely from pp. vi. and vii. of that document. After showing the growth of agricultural education under the Board since the date of the Report of the Departmental Committee on Agricultural and Dairy Schools, of 1887-8, the matter is summarised thus—

"It may be useful . . . . to recapitulate some of the "leading features in which it has been found that agricultural "centres are likely to prove of special value to agricultural "education in all its bearings. These are:—

"(1) The technical training of teachers, mostly engaged in "elementary schools, who are capable of giving instruction to lads "in evening schools and classes.

"(2) The provision of experts for giving courses of instruction "in particular branches of practice, such as dairying, horticulture, "poultry-keeping and the like, together with convenient arrange-"ments for the necessary supervision of the instruction so given.

"(3) The provision of instruction to actual farmers in those "matters of a semi-scientific, semi-practical character which are "now usually classified under the head of extension lectures, and "which comprise such subjects as the economic use of artificial "fertilisers and feeding stuffs, the methods of preventing or "mitigating the attacks of injurious insects and other pests affecting "farm crops, the hygiene of the farm and the treatment of stock "in health or disease.

"(4) The conduct of stations of field demonstration and "experiment, whereby farmers are shown on their own farms "the action of different manures, and are taught by means of "lectures how to discriminate between them, and to choose and "purchase those which are calculated to give the best return to "the crops for which they are intended.

" (5) The provision at the college centre of such continuous " courses of scientific instruction as are likely to be of educational " value to the sons of farmers in the district, at a cost within the " reach of the class for which they are intended.

" (6) The provision of means for personal intercourse between " the head of the agricultural department of the local college and " his staff and the farmers in the neighbourhood, so that the " college may become the place to which the agriculturists of the " district will naturally turn for information and assistance in " every matter of a scientific character bearing in any way upon " their practical work.

" (7) The provision in each locality, for the benefit of the Local " Authorities, of a body of scientific experts whose services may " be available, either for instruction or for consultation, at a cost " much below that which an individual Council would have to " pay if it were to attempt to set up an institution of similar " character in its own area.

" This broad statement of the proper work of a collegiate " centre indicates generally the aims that may be kept in " view in establishing or developing institutions of this class. " Notwithstanding the concentration of a large portion of the " State grant on the maintenance of the centres, it is fully " recognised that some time must elapse before all of these " brought into existence through the action of the Board can " fully discharge the list of potential functions above described. " Developments must in every case be more or less gradual and " tentative, and the precise importance attached to each section " of the work will to some extent necessarily vary with the local " needs of each district."

Again, in the Report of the Board for the year 1900-1901, it is stated, on pp. v. and vi., that—

" of the grants enumerated in this Report, by far the larger " sums are now awarded in the form of subventions of a general " character to the collegiate centres of agricultural education in " England and Wales, which have been established to make local " provision for the higher forms of agricultural instruction, for the " supervision of various forms of experimental work, for the " training of agricultural teachers and for the provision of " scientific advice and assistance to the Councils of the " administrative counties which have associated their systems " technical instruction in agriculture, either as a whole or " regards some sections of their work, with the fully-equipp " centres aided by the Board."

It will thus be evident that the work done at these centres consists of in-college courses of various kinds and degrees, and external operations according to the measure of the closeness of the connection between the colleges and the counties served. Some counties appear to put all their work into connection with the collegiate centre; other counties partly do so—*e.g.*, such work as agricultural lectures, field experiments and so forth, goes to the college, while the work of horticulture, poultry-keeping, etc., is done by the county itself separately. The Agricultural Education Committee are of opinion "that groups of counties, not yet "affiliated to any collegiate centre, should be formed, each group "being affiliated to some centre"—a counsel of perfection to which Central and Local Authorities alike would do well to respond. A Central Authority might do much by persuasion or advice (or both), but very much more by securing a loosening of the purse strings of the State. If the colleges could be so staffed by the aid of the National Exchequer that they could say to the Local Authorities—"We will and can do all the work you require, and "at a much less cost than if you do it yourselves"—the Local Authorities would doubtless agree willingly to come under their influence; but, at present, the collegiate centres while adopting this attitude in principle are only enabled to do so to a very limited extent in practice. It is a serious fact that a large portion of the country is as yet untouched by any collegiate centre, and, consequently, there is an urgent necessity for an adequate increase of funds for collegiate development.

It appears from last year's Report of the Board, namely, that for 1902-3, that a slight increase of funds has enabled the Board to subsidise institutions hitherto unaided. These institutions may be said, educationally speaking, to occupy a somewhat lower grade than the university colleges, and are working more directly for—indeed in all but one case were started by and are supported by—a single County Council: as, for instance, the Agricultural and Horticultural School at Holmes Chapel in Cheshire and the Agricultural and Horticultural College at Uckfield in East Sussex. The principle of giving State aid to this class of institution having now been accepted should be freely and liberally extended.

But apart from their money grants the Board of Agriculture and Fisheries inspect the work of County Councils and give advice to their Education Committees. These are among the *permissive* powers conferred by the Board of Agriculture Act (Section 2 (2) (), and the Board have rendered useful service by exercising em; but it must be borne in mind that the Act just named dated 1889, and that 13 years afterwards the sanction of

Parliament was given to the Education Act, 1902. By this latter Act (Section 2 (1)), "the Local Education Authority shall "consider the educational needs of their area and take such steps "as seem to them desirable, after consultation with the Board of "Education, to supply or aid the supply of education other than "elementary, and to promote the general co-ordination of all "forms of education, ..." The problem of the systematic organisation of agricultural education at once suggests itself in this connection.

THE BOARD OF EDUCATION.—*Elementary.*—This branch of the work of the Board of Education may, on the one hand, be held to bear only an indirect relation to agricultural education; on the other hand, it may be considered that here the whole subject of rural education has its commencement. In the words of the excellent "Introduction" to the Code for 1904, "the purpose of the "public elementary school is to form and strengthen the character "and to develop the intelligence of the children entrusted to it, " . . . . to train the children carefully in habits of observation "and clear reasoning, so that they may gain an intelligent "acquaintance with some of the facts and laws of nature; . . . "the school must at the same time encourage to the utmost the "children's natural activities of hand and eye by suitable forms of "practical work and manual instruction; . . . ." In brief, the school is to be regarded as a whole compact educative force rather than as a means of attempting to convey a mass of disjointed and ill-assorted material to scholars whose receptive faculties have not been quickened aright. Thus we have, under Article 1 of the Code, the subject—"*Knowledge of the common phenomena of the external "world*, with special reference to the formation of a habit of "intelligent and accurate observation, and to the application of "that habit—in conjunction with simple forms of experiment—in "the daily life and surroundings of the scholars." Then there are the specific subjects such as gardening (for boys) and dairying (for girls). Provided adequate facilities are afforded for practical work, special grants are made in this connection; and it may be noted here that garden plots have increased greatly.

Other than Elementary.—In this section also there is instruction of a 'foundation' character, but after a sound general education has been given the work begins to be more or less 'applied.' Grants are made to secondary schools in respect of courses which would usually include sciences bearing on agriculture, *e.g.*, chemistry and physics; and there are available courses "specially suitable "for the requirements of the locality." The importance of the work just named, which for lack of a recognised definition we may call

'secondary,'—since it lies between the elementary schools on the one hand and the university colleges on the other—cannot be exaggerated, in view of the complaint made by all those responsible for operations in the colleges that those who attend their courses have had no preliminary training. Again, occupying a position in one respect midway between the elementary schools and that which we have ventured to term the 'secondary' sphere—and yet, in another respect, apart from either—are the local classes in connection with evening schools, technical institutions, etc., subsidised by the Board of Education, and embracing such subjects as nature-knowledge, manual instruction (wood and metal work), gardening, dairy work, cottage industries. The subject of "agricultural science and rural economy," too, is to be found within the 'other than elementary' sphere: it is science subject xxiv.

THE LOCAL AUTHORITIES.—The County Councils are now empowered to promote education in all its aspects, and are thus affected by that which is done by the Board of Agriculture and Fisheries and the Board of Education. In the domain of agricultural (including horticultural) education, the following includes most of what is done by the several local bodies:—agricultural lectures—dealing with the more practical or utilitarian side of the subject (*e.g.*, the use of artificial foods and manures: the character of soils); veterinary lectures—dealing with the hygiene of the farm; poultry-keeping lectures; instruction in bee-keeping, farriery or horse-shoeing; dairy work (butter and cheese-making); field experiments; processes of agriculture (sheep-shearing, ploughing, hedging, stacking); horticulture in all its branches by means of lectures and demonstrations, together with gardens for lads and others, ranging indeed now from the elementary school to the county fruit station.

Such, in brief, is the work now carried on by the three sets of Authorities mentioned, the ramifications of which make it very difficult to say with proper precision where one Authority begins and another ends. It is, however, surely impossible to read the foregoing without realising that here we have all the material at hand for such a system of rural and agricultural education as shall be worthy of the country, if only something like order can be evolved out of the insufficiently organised efforts now being made by the Central and Local Authorities concerned.

THE ADJUSTMENT OF PROCEDURE.

ONE COMPLETE CENTRAL AUTHORITY.—The first requisite seems to be the gathering together of all the operations of the State under one Central Authority, as contemplated by the Board of Education

Act, 1899, which states that—"There shall be established a Board "of Education charged with the superintendence of matters relating "to education in England and Wales" (Section 1 (1)), and that—"It shall be lawful . . . . to transfer to, or make exercisable "by, the Board of Education any of the powers of the . . . . "Board of Agriculture in matters appearing to . . . . relate "to education . . . ." (Section 2 (2)). The country ought to insist that there shall not be any further delay in this matter, and that there shall be organised within the Board of Education a strong Division or Department for rural and agricultural education. The time is ripe for such a reform; for on all sides it is seen that farmers and others connected with the land are becoming alive, in a manner and to an extent as would hardly have been believed possible ten years ago, to the importance of the relation of education to agricultural pursuits. Under the existing dual system there is danger lest the advantages offered by the new Regulations for Secondary Schools may not be embraced so as to meet the needs of the small farmer's son, who would hardly ever go to a college. Moreover, it would seem to be impossible for the Local Education Authority so "to promote the general "co-ordination of all forms of education" as directed by the Education Act of 1902, unless *the Board of Education* absorb the educational functions of the Board of Agriculture and Fisheries. The Local Education Authority should be able to look to one Central Authority for that prompt advice and support as will strengthen any endeavour to further the systematic development of education as a whole. To attempt to co-ordinate the two central bodies at present concerned with rural and agricultural education, and thus to leave each with separate, though clearly defined, functions, would, if successful, be at best only a half measure; for there would ever remain possibilities of misunderstanding, and perhaps of friction, with a dual system at the centre. And when, above all things, the aim is to secure 'freedom, variety and elasticity' in its fullest sense, any half measure must give place to a single and complete central organisation.

A LIBERAL FINANCIAL EQUIPMENT.—The second requisite is a sufficiency of funds. The Division or Department, if created, should be so equipped as to enable it to deal more liberally with collegiate centres and with experimental and research work, and to offer to County Councils that advice which would not too frequently stop at the spoken word, but would almost invariably be linked with substantial grants towards, *e.g.*, the stipend of any teacher or instructor whose services, in the opinion of the Division or Department, were needed in any particular county.

The Lesson of Ireland.—Ireland is now far ahead of England and Wales in this respect. From the Third Annual General Report of the Department of Agriculture and Technical Instruction for Ireland, viz., that for the year 1902-3, it will be found that about £88,000 was spent by the Agricultural Board in that financial year upon agricultural education. It is true that of this sum a substantial portion was spent upon horse-breeding and live-stock schemes, and upon other matters which would not be required in this country; but, when all allowances are made, the amount actually apportioned to agricultural education in Ireland is vastly in excess of that available in England and Wales. Further, the Irish Agricultural Board have a reserve fund of over a third of a million sterling, which can be drawn upon to initiate branches of agricultural education not yet compassed and to sustain the whole of the Board's efforts as they develop. The Agricultural Board are brought into very close contact with the Local Authorities, not merely because grants are made to those Authorities for purposes of agricultural education, but rather by reason of the administrative conditions associated with the grants. It may be useful to mention in this connection that the schemes for the distribution of funds provide for large contributions by the Board and that this central aid is given, *inter alia*, in some cases for a portion of, in other cases for the whole of, the cost of an instructor, upon the understanding that the Local Authorities undertake to bear certain financial and other responsibilities; and it is gratifying to read, in the Report already mentioned, of the harmonious relations which exist between the central and local bodies. With a view to indicate with greater precision the character of these schemes, one of them is given below as an Appendix.

CONCLUSION.

Although Irish methods may not be completely applicable to English conditions, it is not too much to say that the procedure adopted upon the other side of St. George's Channel might well serve to illustrate how a suitable system could be established in England and Wales. But the antecedent conditions must be properly recognised and fulfilled. It has been the aim of this article to show in outline what these really are and to hasten their recognition and fulfilment. It will have been seen that there exist already the nuclei of a complete and beneficent scheme of agricultural education. The task of the reformer, therefore, should be a comparatively simple one. To bring together the scattered and fragmentary elements of a system and to place them under the ægis of *one* well-equipped Central Authority would remove an

anachronism in our educational polity. It only remains for educationalists and agriculturists to jointly manifest their determination to secure the satisfaction of the just claims of the nation's greatest industry to arouse in support of those claims a volume of opinion whose force would be irresistible.

APPENDIX.

DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION FOR IRELAND.

Scheme of Instruction in Agriculture.

(1) The Department are prepared, provided a suitable instructor in agriculture can be obtained, to approve of the appointment of at least one such person for each county in Ireland.

(2) The Department will, as far as possible, assist the County Committee in obtaining an instructor, by supplying the names of persons qualified for the post.

(3) It will be the duty of the instructor to deliver courses of lectures on agricultural subjects, such as soils, manures, seeds, pastures, crops and their cultivation, breeding, feeding and management of live stock; to visit farms and give such practical advice as the circumstances of the case may suggest; to conduct such experiments and demonstrations in spring and summer as may be approved by the Department; to select suitable land for this purpose; to supervise the sowing of the seeds and manures and the keeping of the plots free from weeds; to weigh the produce, tabulate the figures and prepare a report on the results; to reply to letters from farmers seeking information; to advise farmers how they may avail themselves of the Department's live stock schemes and of the Department's Seed-Testing Station; to make known the provisions of the Fertilizers and Feeding Stuffs Act; to advise farmers how they can best avail themselves of all schemes which may be adopted by the County Committee and by the Department; and generally to give his whole time to the work and do all in his power to further the interests of agriculture in the county.

(4) For the purposes of this scheme the county should be divided into circuits, each comprising not less than five centres. The instructor should work for at least four weeks in each circuit, and deliver one lecture per week at each centre during that time.

(5) It will be the duty of the County Committee to select centres at which the lectures will be given, and to appoint an *honorary* local secretary and a Local Committee at each centre who should select

the school and arrange for the hiring, lighting and warming of the room in which the lectures will be delivered.

(6) It will also be the duty of the County Committee to undertake the responsibility of seeing that the instructor's time is fully and usefully employed.

(7) The lectures should commence early in autumn, and be continued until the end of the first week in March.

(8) To avoid expense these lectures should be arranged as far as possible to be given in school-rooms, and should be held in rural centres. Unless in exceptional circumstances, no lectures should be arranged for in a large village or town.

(9) The remuneration of the instructor shall not, except in special cases, exceed £200 per annum, inclusive of maintenance and hotel expenses, in addition to expenses of locomotion, which include second-class railway fare, car-hire when necessary, or a bicycle allowance of twopence per mile in lieu thereof.

(10) The appointment of the instructor shall be determinable at any time by three months' notice in writing on either side.

(11) The Department, provided (1) that they can approve of the estimated total expenditure, (2) that the scheme is carried out to their satisfaction, (3) that a separate account of all expenditure under this scheme is kept and furnished by the Secretary of the County Committee and (4) that the County Committee agree to pay out of the rates the actual necessary expenses of locomotion in the county of the instructor, are prepared to pay the whole salary of the instructor, together with 50 per cent. of all other authorised expenditure under this scheme.

(12) It shall be the duty of the Secretary of the County Committee to ensure that no action shall be taken by the Committee towards putting this scheme, or any part thereof, into operation until the sanction of the Department has been obtained in writing.

(13) The Department will require to be satisfied of the competency of the person selected for appointment as Secretary to the County Committee.

III.--THE TRAINING OF TEACHERS.

PRELIMINARY PROPOSALS IN VARIOUS DISTRICTS.

(Continued from "The Record," April/June, 1904.)

(e) LANCASHIRE AND CHESHIRE.

Introduction.

In September, 1903, the Higher Education Sub-Committee of the Lancashire Education Committee requested the Director of Education (Dr. H. Lloyd Snape) to report upon the whole question of higher education with the view to taking steps to promote the general co-ordination of all forms of education. This report has been presented to the Sub-Committee by the Director and is now under the consideration of the County Committee. It deals in separate sections with the question of secondary education generally, the provision and the existing supply of day secondary education, the training of teachers and evening schools and classes.

The proposals and considerations upon the training of teachers were made upon the basis of the Code and the Regulations of the Board of Education existing at the time of issue of that section of the report (May, 1904), and will, therefore, be affected by the new Regulations for Pupil Teachers and for the Training of Teachers and for the Examination of Students in Training Colleges in respect of the year 1904-5. It will be seen on pp. 313-14 that the joint action of the Lancashire Education Committee and other Local Authorities in the matter of the training of teachers was contemplated, and this is already proceeding. A Conference was held at Manchester in June last between representatives of the Lancashire and Cheshire County Councils, the county boroughs in the two administrative counties, the Universities of Manchester and Liverpool and other educational institutions. The Lancashire Sub-Committee's report was submitted to the Conference, and it was agreed that the various educational authorities in the whole of the two counties should co-operate in the training of teachers and in the provision of training colleges. To carry out the foregoing proposal a Special Committee, constituted as follows, was appointed to draw up a scheme for consideration :—the Chairmen and Deputy-Chairmen of the Lancashire and Cheshire Education

THE MUNICIPAL SECONDARY DAY SCHOOL, GRAVESEND. (*See page* 394.)

[By kind permission of Mr. George H. Arnold, Chairman of Kent Education Committee.]

THE MUNICIPAL TECHNICAL SCHOOL, GRAVESEND. (*See page* 394.)

(By kind permission of Mr. George M. Arnold, Chairman of Kent Education Committee.)

Committees; three representatives each of (*a*) the Universities of Manchester and of Liverpool, (*b*) the 16 county boroughs in Lancashire, (*c*) the three county boroughs in Cheshire, (*d*) training colleges. Limitations of space preclude lengthy reference to the general considerations set out in the report, but special prominence is given to the specific suggestions made, as they may constitute a basis for joint action.

Sources of Supply of Pupil-Teachers.

It has been suggested that first and second-class secondary schools be established in various parts of the county, and Centres . . . . within convenient reach, either by tram or rail, or both, from the surrounding districts.

An adequate supply of teachers cannot be obtained from the children of parents who will be able to keep them up to 16 years of age at secondary schools. Nor, even were this the case, would it be desirable that the children of poorer parents should be excluded from the teaching profession. The boys and girls who have ultimately become the teachers in elementary schools have been, to a large extent, the children of parents who could not afford to pay the fees charged at secondary schools.

Pupil-Teachers' Exhibitions.

A scheme of exhibitions should be established providing free tuition at a secondary day school or at preparatory classes connected with a Pupil-Teachers' Centre and travelling expenses (if any), ... the transfer from the elementary to the secondary school being effected *at latest* at 13 years of age (wherever practicable, at twelve), and the exhibitions extending over three years prior to the age of 16. Money spent upon the education of candidates eventually declining to become pupil-teachers would be refunded. . . . . Some of the exhibitioners may not realise the expectations originally formed, on the basis of an examination at an early age, as to their suitability; and, hence, no one should be allowed to become a pupil-teacher without passing an examination corresponding to at least the Intermediate Certificate Examination suggested for the first and second-class secondary schools.

The Training of Pupil-Teachers.

. . . . In order to reduce to a minimum the time occupied in travelling distances to attend Centres, pupil-teachers should spend one whole day at a time at the Centre and the following day in the elementary school. As pupil-teachers in their first year—those from 16 to 17 years of age—might, with advantage,

spend more time at the Centre than in the elementary school, such teachers should attend the Centre on Mondays, Wednesdays and Fridays and the elementary school on Tuesdays and Thursdays. On the other hand, the second-year pupil-teachers should adopt the opposite course . . . . If this is adopted, the Education Authorities of the Pupil-Teachers' Centres in the county boroughs should make arrangements in conformity with this proposal, in order to accommodate those pupil-teachers from the county area who will receive their training at these Centres. . . . . No pupil-teachers should be attached to any school that is not conveniently situated with regard to a Pupil-Teacher Centre.

The new Regulations provide that pupil-teachers in rural schools may be apprenticed at 15 years of age for a term of three years. As no Centre in the county with be devoted entirely to such pupil-teachers, to give effect to the Regulation would introduce considerable difficulties in organisation, etc., at Centres attended by students apprenticed for three years. . . . . Pupil-teachers from rural as well as from urban schools should, therefore, generally be apprenticed at 16 years of age for two years.

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The following quotation is given from Mr. Rankine's General Report on Training Colleges for 1902:—"The Superintendent of the "Centre should act as Master of Method, and *extend his supervision* "*to the practical work of his pupils*, as well as to their preparation for "the King's Scholarship Examination. Candidates ought only to "be apprenticed in schools where they will be under the care of "competent head teachers, who will take an interest in their general "training and send in regular reports to the Superintendent. The "pupil-teachers should attend model and criticism lessons and pay "visits of observation to selected schools. A sufficient variety of "educational experience ought to be provided for them, and it "ought not to be possible, as it is at present, for King's Scholars "to enter college with nothing but the experience obtained by "teaching a class of babies."

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The Sub-Committee strongly recommend that the Board of Education be urged to alter the date of the King's Scholarship Examination from December to, say, the month of May, or to some other date much nearer the close of the apprenticeship of the pupil-teacher than the present one.

The Cost of Education of Pupil-Teachers and Candidates.

It has been estimated that, in order to meet the annual loss amongst the adult teachers in the county elementary schools, at least 400 pupil-teachers should have completed their apprenticeship each year.

. . . . It would be necessary in any one year that there should be 400 pupil-teachers in their first year and 400 pupil-teachers in their second year. Moreover, in order to afford the supply of pupil-teachers there should be each year at least 400 candidates qualified to enter upon an apprenticeship. Assuming that the period for which the Committee undertook the responsibility of affording preparation for apprenticeship extended over only two years, the numbers to be provided for in each year, after the scheme had come fully into operation, would be—800 pupil-teachers, *i.e.*, 400 each in their first and second year of apprenticeship respectively; and 800 candidates, *i.e.*, 400 each in their first and second year of preparation respectively.

As nearly as can be estimated, about the same number of pupil-teachers, and consequently the same number of candidates, would be required to provide for the "wear and tear" of the staffs of the schools in the areas autonomous for Part III. of the Act; and for their education the Committee would probably also undertake the responsibility.

It is accordingly probable that it would be necessary to provide, in all, for the education of 1,600 pupil-teachers and 1,600 candidates.

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Neglecting the salaries to pupil-teachers and to the additional teachers required to replace their services when they are all under instruction for half-time, as payable out of funds available for the purposes of elementary education, and without making any allowance for bursaries to candidates, nor for their education for more than two years, the cost of educating the pupil-teachers and candidates may be estimated as follows:—1,600 pupil-teachers at £6, £9,600; 1,600 candidates at £7, £11,200; total, £20,800.

The Training of Other Teachers.

Statistics are quoted which show that only about one-half of the candidates who enter for the King's Scholarship Examination pass sufficiently high to qualify for admission to a training college; and, owing to the limited accommodation afforded by the existing colleges, only about one-half of those who do qualify can be admitted. Hence, nearly 75 per cent. of the candidates presented each year fail to obtain the preparation which a training college affords . . . . It is also shown that of the 70,886 certificated teachers employed in England and Wales in 1903, 31,000 did not pass through a training college.

As regards other teachers, it is recommended that all uncertificated assistants, who may be appointed in the future, be required to

pass the Certificate Examination within a limited number of years (say five) from the date of their recognition as assistant-teachers, and that all uncertificated assistants below a certain age, now in service, be subject to the same requirement as a condition of continued employment.

Hence, no scheme for the training of teachers would be complete which did not make provision for the training of this class of teacher. This has been recognised in the past by the establishment, in connection with Pupil-Teachers' Centres, of Certificate Classes to help acting teachers to prepare for the Certificate Examination.

The ideal provision for the training of acting teachers would be one similar to that made by the late London School Board. The system might be described as an extension to older teachers of the half-time pupil-teacher system. The acting teachers selected are only required to serve during one-half the school time, and the remaining half is spent in attendance at training classes. The course of instruction, which is free, extends over three years, and embraces all the subjects required for the certificate; and careful attention is given to the practical training of the students. This scheme thus affords to those teachers, who are unable to enter college, systematic instruction and also some desirable relief from the strain of school-work while studying. The teachers who avail themselves of the opportunity for thus obtaining their certificate are paid on a lower scale of salary during the period in which they give only half-time service in the school; but the temporary loss is more than compensated for by the increased salary received after gaining the status of certificated teacher.

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This system is strongly recommended, but it may not be possible to put a similar scheme into operation throughout the county at the present time, owing to the difficulty of obtaining the additional teachers who would be necessary were some of the staff to be absent for half-time from the schools, and in view of the large increase in expenditure involved.

As a matter of expediency, therefore, it is recommended that in the immediate future only local provision be made, in the evenings and on Saturday mornings, for the training of uncertificated assistants. This work could be entirely undertaken by the permanent staffs attached to the pupil-teacher departments to be established in connection with secondary schools. Definite courses of instruction suited to the requirements of acting teachers would be prepared, and a plan of study, extending over three or four years, arranged. . . . . It would be necessary to consider whether these classes should be free and what proportion (if any)

of the travelling expenses of the teachers attending should be paid by the Committee.

There is another class of teachers for whose training some provision must be made locally, viz., those described in the (1903) Code as "Additional Teachers" (now termed "Supplementary Teachers").

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The number of teachers of this type has increased very rapidly . . . .

It is a matter for serious consideration whether it would not be advisable, after some specified period, to cease to engage these teachers. But since they form a necessary part of the existing educational machinery and are likely to do so for some time, it is strongly recommended that some qualification by examination, though of a lower standard than that of the King's Scholarship Examination, should be required in the case of candidates for all new appointments; and that, as a condition of appointment, they be required to pass the King's Scholarship or other equivalent examination within a given period.

It would thus be necessary to arrange for special classes to enable these teachers to qualify for higher examinations.

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Statistics of Teachers in Lancashire and Cheshire.

The following statistics, which were collected in November, 1903, apply to the areas under the control of the Lancashire Education Committee and the other Authorities for Elementary Education in Lancashire and Cheshire :—

NAMES OF AUTHORITIES.	Certificated Teachers passed through a Training College.		Certificated Teachers not passed through a Training College.		Articles 50, 51 and 52 Teachers.		Article 68 Teachers.	Pupil-Teachers and Probationers.	
	Males.	Females.	Males.	Females.	Males.	Females.		Males.	Females.
Lancashire:									
County area	394	307	166	634	58	904	661	131	979
County Boroughs.....	1,308	1,669	428	2,184	325	3,412	913	534	3,549
Non-County Boroughs..	226	213	80	374	73	720	225	113	798
Urban Districts.....	101	94	49	248	31	408	156	23	285
Cheshire:									
County area	259	287	*Included in others.*		40	422	249	59	445
County Boroughs.....	52	93	10	93	15	185	49	28	191
Non-County Boroughs..	81	71	16	96	26	181	98	48	196
Urban Districts.....	16	48	1	45	1	50	14	6	62

Training Colleges.

Until more accommodation can be provided in the existing training colleges and additional colleges can be established, only a very small proportion of pupil-teachers can hope to obtain a college training. As regards the demands to be made upon the colleges, Mr. A. Rankine, H.M.I., in his last report, calculated that "an "additional yearly output of 2,840 more teachers is required if, by "the end of 20 years, there is to be a trained teacher for every "50 scholars in average attendance. If the population continues "to increase at the present rate, a special addition of 1,000 "teachers annually will be necessary from this cause alone."

With reference to the financial side of the question, it is urged that, exclusive of any expenditure which will be incurred in extending existing colleges and providing new colleges, larger grants to the colleges for cost of maintenance and some assistance to students who could not afford to go to college, even were places offered to them, are required. To provide, most efficiently and economically, the funds for the training of teachers it is advisable that several Authorities should combine—a principle recognised by the Lancashire Education Committee.

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In connection with the qualifications for admission to the training colleges, there are to be considered those candidates who only pass in the third class in the King's Scholarship Examination and are not eligible. Many who have only gained a third class in any one year . . . . attempt the examination in the following year, but unless within convenient reach of suitable centres of instruction, they may fail to obtain a higher class. It is, therefore, desirable that such students should be enabled to attend a Pupil-Teachers' Centre for a year, subsequent to the first examination.

Were there to be any large number of candidates who had received up to 18 years of age a thorough education in a good secondary school and passed some approved qualifying examination, it might be desirable to establish training colleges in which courses of instruction extending over only one year should be given. Under such a scheme, the same accommodation would serve for double the number of students ordinarily received.

Again, whilst there are many advantages to be gained by establishing training colleges at university centres, a considerable proportion of the normal students will be unable to undergo the severe strain which is involved in pursuing simultaneously the course for a university degree and also those subjects, required for the Certificate Examination, which lie outside the course for

graduation. The universities would not be willing to receive any large number of students who were incapable of attending with profit the degree courses, and it would probably be necessary, even at those centres where day training colleges already exist, to establish other colleges or hostels in order to provide for those students for whom a less advanced course, leading only to the certificate, is desirable. Such institutions might still be affiliated to the universities, and some of the classes might be conducted by members of their staffs. Indeed, it is desirable that all the training colleges, of whatever type, should be brought into as close touch as possible with the universities.

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There are thus many problems connected with the determination of the nature and number of training colleges required, and the possibility that further grading of colleges may be found desirable accentuates the importance of endeavouring to secure co-operation between neighbouring Education Authorities.

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STATISTICS OF TRAINING COLLEGES IN LANCASHIRE AND CHESHIRE.—The following particulars, compiled in October, 1903, refer to the existing colleges in these counties :—

NAME OF COLLEGE.	RESIDENTIAL COLLEGES.			DAY COLLEGES.
	Accommodation.	Students in Residence.	Day Students.	Students in Training.
Chester (C.E.)	112 (M)	107	..	..
Edge Hill (U.)	130 (W)	123	10	..
Liverpool (R.C.)	145 (W)	145	..	..
Salford (R.C.)	20 (W)	3	..	..
Warrington (C.E.).....	146 (W)	139	..	..
Liverpool University.....	..	..	..	108 (60 M ; 48 W)
Manchester University....	..	..	..	175 (89 M ; 86 W)

[Note : 'C.E.' means Church of England; 'U.,' undenominational; 'R.C.,' Roman Catholic; and 'M' and 'W' signify men and women respectively.]

Joint Board for Training Teachers.

The principle of co-operation being generally agreed upon . . . . a Joint Board for Training Teachers should be established. On this Board should be placed representatives of the Lancashire Universities and of the various Education Authorities for the counties and county boroughs of Lancashire and Cheshire. To it would be entrusted the task of preparing a report on the number and types of colleges required, the places where the colleges and hostels should be situated and the probable

total cost of establishment and maintenance. A joint scheme having been adopted, the various Authorities represented on the Board would contribute in certain proportions to be agreed upon, probably on a capitation basis, to the maintenance of the various colleges and hostels approved.

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The Training of Teachers for Secondary Schools.

. . . . It is essential that the teachers to be employed in secondary schools should have received some training in the theory and practice of teaching. Those who desire to become such should pursue a university course, followed by a year's special professional training in the theory and practice of teaching. This training can be most fittingly given in the universities and university colleges; and it is, therefore, to the day training colleges . . . . that Education Authorities must look for the requisite supply of those who will be suitably qualified . . . . for positions on the teaching staffs of secondary schools.

(f) THE WEST RIDING OF YORKSHIRE.

SCHEME FOR THE TRAINING OF PUPIL-TEACHERS.*

PART I.—PRELIMINARY SCHEME.

Introductory Suggestions.

In view of the transfer of responsibility for the maintenance of elementary schools from the School Boards and Voluntary Managers to the County Council, the arrangements for staffing have of late been transitional.

It is evident that in some cases the supply of pupil-teachers has not been well maintained. Unless immediate steps are taken to secure the requisite number of candidates, it is feared that a sufficient number of suitable applicants may not be presented at the forthcoming examination.

The following scheme has in it the elements of permanency, but for the moment it cannot be considered other than preliminary. It is suggested provisionally to meet the demands of the situation.

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* County Council of the West Riding of Yorkshire—Education Committee: Scheme for Training of Pupil-Teachers (with estimates relating thereto): approved by the West Riding Education Committee, 26th April, 1904 (slightly abridged).

An examination of candidates will be held by the Board of Education on May 14th, 1904, and after that date there is no further examination (by the Board) until May, 1905. It is, therefore, necessary to present and pass as many candidates as possible, not only with a view to the immediate needs of the schools, but more particularly that the supply of trained teachers may be ultimately maintained.

In view of this some decision must be arrived at on the following points :—(1) a scale of salaries for pupil-teachers; (2) provisional "bursary" scheme for "intending pupil-teachers" . . . .; (3) arrangements for instruction and training of pupil-teachers in secondary schools, in Pupil-teacher Centres and in other ways.

Some of the candidates to be presented in May will be apprenticed for three years from 1st January, 1904. Others who are not eligible, on account of age, for apprenticeship from that date will be recognised for three years from the 1st August, 1904. In their case the first year (August 1st, 1904, to July 31st, 1905) will be spent in full-time attendance at a secondary school or a Pupil-Teacher Centre, and the boy or girl will be known as an "intending pupil-teacher." At the end of this first year the boy or girl will be apprenticed as a pupil-teacher for two years (August 1st, 1905, to July 31st, 1907). An exception is made, however, in the case of pupil-teachers in rural schools, who may be apprenticed for three years from August 1st, 1904, to July 31st, 1907.

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Details of the Scheme.

CLASSIFICATION.—The candidates . . . must be distinguished as follow :—

Group A.—Those who will be apprenticed for three years (or four years in rural districts) from the 1st January, 1904, under the old Regulations;

Group B.—Those who will serve as "intending pupil-teachers" for one year and be apprenticed as pupil-teachers for two years under the new Regulations.

CONDITIONS.—Candidates must not be less than 15 years of age on 1st August, 1904; are required to produce a certificate of health on the Board of Education Form 42; should give the names of two referees (one of whom should be the head-teacher of the candidate's school) who will satisfy the Committee as to their character and general suitability; and must pass the examination of the Board of Education to be held on the 14th May, 1904, in one

of four groups for which provision is made (see Board of Education Circular 496). These conditions apply to both Groups.

INSTRUCTION.—In this connection a variety of methods will have to be considered in determining the kind of instruction to be provided for pupil-teachers and "intending pupil-teachers"—for example:—(*a*) for "intending pupil-teachers," the secondary school, the higher elementary school, preparatory classes; (*b*) for pupil-teachers, Pupil-Teacher Centres, either attached to a secondary or higher elementary school, or independent. To any or all of these a boarding hostel may be attached.

Group A.—The pupil-teachers in this Group will, where necessary, be taught for the year ending July 31st, 1905, as at present. Where present arrangements are not continued, provision should be made on the lines suggested for Group B. The change from the old to the new system must necessarily be effected gradually.

Group B.—Under the Regulations of 1903 it is necessary to make provision for the full time instruction of the approved candidates for one year. For this purpose recourse should be had to the secondary school, where arrangements can be made. It seems almost certain that in a number of cases the Pupil-Teacher Centre will ultimately be merged in the secondary school. It is, therefore, inadvisable to increase the staff of the present Pupil-Teacher Centres, unless it is quite certain that the same Centres will continue to be used.

In this Group there will be a number of rural pupil-teachers serving in schools remote from a secondary school or a Pupil-Teacher Centre. No suggestions are made at present for dealing with this class of pupil-teacher. The number to be dealt with this year will not be large; and in all probability each case must be considered separately and in a way to satisfy the Board of Education that the Committee have made the best arrangements possible for the pupil-teachers' instruction.

TRAINING.—*Group A.*—The pupil-teachers in this Group will, for the present, continue to serve in schools under the old Regulations. The attendance at the Pupil-Teacher Centre for instruction should be for at least half their school time.

Group B.—The pupil-teachers in this Group, for some part of the second and third years, will attend the elementary schools to which they are attached for training in the art of teaching.

In the case of rural pupil-teachers, the conditions of service and the means and quality of instruction will vary considerably in different parts of the Riding, and in their case instruction and training in school will be combined in a manner to be determined hereafter.

SALARIES AND ALLOWANCES.—*Group A.*—Salaries will be paid on the following scale:—boys—1st year £17, 2nd year £20, 3rd year £24; girls—1st year £14, 2nd year £17, 3rd year £21. In addition, the tuition fees at the secondary school or Centre must be paid, and in many cases an allowance must be made for travelling expenses to the school or Centre.

Group B.—A bursary of £12 (boys) and £10 (girls) tenable for one year (1st August, 1904, to 31st July, 1905) will be paid to "intending pupil-teachers" from 15 to 16 years of age, with free tuition and allowances towards examination fees, books and travelling for distances beyond two miles. When they become apprenticed pupil-teachers then the salaries for the two years' pupil-teachership, 1st August, 1905—31st July, 1907, will be on the following scale:—boys—1st year £20, 2nd year £24; girls—1st year £17, 2nd year £21. The amount of tuition fees, including allowances towards examination fees, books and travelling for distances beyond two miles necessary in each particular district should be added to the salary. As a rule, the pupil-teacher or "intending pupil-teacher" will not be sent to a secondary school unless it is clear that he can complete his course there. In the case of rural pupil-teachers the salaries for a three years' course would be the same as in Group A.

N.B.—It would be well to offer the same conditions as to salaries and allowances to boys and girls who are now in secondary schools and who will be not less than 15 years of age on 1st August, 1904, and have passed an examination recognised by the Board of Education for the purpose of Art. 35 of the Code, subject to their approval by the Education Committee and to their parents formally undertaking to allow them to become pupil-teachers if required on 1st August, 1905.

METHOD OF PAYMENT.—The payment of the above sums will be made in instalments and the larger instalment will not be paid until the conditions are formally complied with.

AGREEMENT WITH PARENT OR GUARDIAN.—*Group A.*—Pupil-teachers in this Group and their parents will sign the usual agreement for a three years' apprenticeship.

Group B.—Pupil-teachers in this Group will be required, through their parents or guardians, to enter into a formal undertaking to become pupil-teachers at the expiration of the first year (July 31st, 1905), if required. Should this undertaking be broken, the final instalment of the bursary will not become payable, and, in addition, the parent or guardian will be required to repay some proportion (the Sub-Committee suggests £5) on account of the expenditure incurred. . . . . The Committee do not bind themselves to accept the "intending pupil-teachers" at the end of the first year.

*PART II.—DEFINITIVE SCHEME.**

Introductory Remarks.

It has already been shown in the Preliminary Scheme that there are various means by which the instruction and training of boys and girls who intend to become pupil-teachers can be carried out, and it will be convenient to consider the scheme suggested according to the means to be adopted in each case. There are four principal ways of dealing with the question:—(i.) the secondary school; (ii.) the higher elementary school with preparatory classes attached; (iii.) the Pupil-Teacher Centre with preparatory classes attached; and (iv.) the elementary school in rural districts. In the case of (i.), (ii.) and (iii.) it may be advisable to make arrangements for the boarding of pupils in hostels or with families.

The Secondary School.

CONDITIONS.—Boys and girls intending to become pupil-teachers should enter a secondary school at not later than twelve years of age. Special attention should be given to the physical and constitutional fitness of "intending pupil-teachers" at this stage, and, as a rule, examination by a medical officer should be required. Satisfactory references (one of which should be from the head-teacher of the school) as to character and general suitability should be required. A standard of attainment should be aimed at not inferior to that at present required in the case of county minor scholars.

In view of the desirability of providing a supply of pupil-teachers who have been educated in secondary schools, an additional number of scholarships should be offered under the scheme for county minor scholarships. . . . .

INSTRUCTION.—"Intending Pupil-Teachers" should receive continuous instruction in a secondary school between the ages of 14 and 16, and should be considered in every respect as ordinary pupils of the school, subject to the possibility of one term being spent, at the age of 15 as non-responsible members of an Elementary School staff, with a view to testing their suitability and keeping them in touch with elementary school work.

TRAINING.—Between the ages of 16 and 18 pupil-teachers should receive instruction in a secondary school and should also undergo training in the art of teaching in an elementary school. The scheme which it is proposed to adopt, subject to the approval of

* This scheme is drawn in conformity with the Regulations of the Board of Education, June, 1903.

the Board of Education, is to continue instruction in the secondary school for a year and a term, and to devote the remaining two terms to training in the art of teaching.

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ALLOWANCES AND SALARIES.—. . . . From the age of twelve to 14 pupil-teachers will be ordinary county minor scholars, receiving the cost of tuition, travelling expenses for distances beyond two miles, together with allowances in respect of boarding, books, examination fees, where necessary, and a maintenance allowance in *very exceptional* circumstances.

Upon becoming "intending pupil-teachers" at 14 years of age they will receive, in addition to free tuition (including allowances towards examination fees, books and travelling for distances beyond two miles) a bursary on the following scale:—boys (14 *to* 15) £10, 15 to 16 £12; girls, £8 and £10 respectively. The bursary will replace any sum previously allowed for maintenance.

At the age of 16 the pupils enter upon their period of apprenticeship. Salaries will be given to them on the following *scale*:—boys (16 to 17) £20, 17 to 18 £24; girls, £17 and £21 respectively. The amount of tuition fees and travelling expenses necessary in each particular district should be added to this salary.

N.B.—The same opportunities and conditions which are offered to county minor scholars desiring to become pupil-teachers should also be offered to other pupils and scholars in secondary schools, who (i.) are over 14 and under 15 years of age, (ii.) have already passed two years in a secondary school, (iii.) furnish satisfactory proof that they will benefit by such a course and (iv.) whose parents undertake that they shall become pupil-teachers at the proper time if required.

METHOD OF PAYMENT.—The payment of the above bursaries *will* be made in equal half-yearly instalments, but the final instalment will not become due until the Committee are satisfied *that the* conditions, under which the bursary has been awarded, are fulfilled, and that the agreement undertaken has been kept.

AGREEMENT WITH PARENT OR GUARDIAN.— . . . . When the "intending pupil-teacher" is 14 years of age, the parent or guardian should be required to enter into a formal undertaking that the pupil shall, if required, take the full course prescribed. Should this undertaking be broken, the final instalment of the bursary will not become payable, and, in addition, the parent or guardian will be required to repay some proportion (the Sub-Committee suggests £5) on account of the expenditure incurred . . . . When the "intending pupil-teacher" begins his apprenticeship the parent or guardian and the pupil-teacher will sign the usual agreement.

The Higher Elementary School with Preparatory Classes Attached.*

CONDITIONS.— . . . . Exhibitions may be offered to boys and girls in higher elementary schools. Candidates . . . . should not be less than twelve years of age on 1st August in any given year, and must have completed the first year's course of a higher elementary school and be eligible for promotion to the second year's course. Special attention will be given to an oral examination, which will be quite practicable in view of the fact that all candidates will be drawn from the same source; any special written examination would only be necessary where there is competition.

INSTRUCTION.—The scholars should receive continuous instruction in a higher elementary school between the ages of twelve and 15. For the one year from 15 to 16 they should receive instruction in a preparatory class attached either to a higher elementary school or to a Pupil-Teacher Centre.

TRAINING.—From the age of 16 to 18 pupil-teachers should attend a Centre where at least half-time is given to instruction and the remaining time to training in the art of teaching in a public elementary school.

ALLOWANCES AND SALARIES.—From twelve to 14 exhibitions will be awarded covering tuition fees and other allowances as in the case of "The Secondary School." The cost will necessarily be less because the tuition fee will be smaller.

The Pupil-Teacher Centre with Preparatory Classes Attached.

The pupils making use of this means of instruction and training will be drawn from two sources—(*a*) the higher elementary school, (*b*) the ordinary elementary school.

CONDITIONS.—Pupils admitted to the preparatory class must be at least 14 years of age. Those from the ordinary elementary schools will be required to pass an admission examination based on the work of Standards VI. and VII. Pupils from the higher elementary school will spend one or two years, that is, from 15 to 16 or from 14 to 16, in the preparatory classes; this will be determined by their attainments and age on leaving the higher elementary school. Pupils from the ordinary elementary school will be required to take the full two years' course, that is, from 14 to 16 in the preparatory classes.

* The conditions and suggestions made under "The Secondary School" apply in this case with certain modifications which are detailed.

TRAINING.—The same as given under "The Higher Elementary School."

ALLOWANCES AND SALARIES.—Pupils drawn from source (*a*) will receive bursaries and salaries from 14 to 18 as detailed under "The Secondary School." Those drawn from source (*b*) will receive bursaries and salaries as previously specified from the ages of 14 to 18.

The Elementary School in Rural Districts.

It remains to offer suggestions for the instruction and training of pupil-teachers for whom *the elementary school in rural districts* is the only means available.

The difficulty of dealing with the pupil-teachers for whom no provision under any of three previous heads is possible is very considerable.

Up to the present time the instruction and training of these pupil-teachers, who constitute a very valuable source of supply, has been almost entirely in the hands of the head-teachers of their schools, and this system must in many cases be continued.

It may be possible in the future to provide for the instruction and training of these pupil-teachers in one or other of the following ways:—

(*a*) The grouping of the pupil-teachers from a certain number of neighbouring schools under one specially-qualified teacher, who would be responsible for the instruction of the pupil-teachers in those schools;

(*b*) The institution of peripatetic masters specially qualified to deal with the instruction and training of pupil-teachers, who would be responsible for the pupil-teachers in a group of contiguous schools and who would be able to reinforce the staff of any school when necessary.

FINANCIAL STATEMENT.

Estimated Cost to 31st March, 1905.

(N.B.—The aim is to have 600 pupil-teachers of 16 years of age in August, 1905, and a similar number in each succeeding year.)

A.—175 additional county minor scholars of twelve and 13 years of age * at, approximately, £11 10s. Approximate cost—for full year, £2,000; for eight months, £1,300.

40 exhibitions at higher elementary schools at £5. Approximate cost—for full year, £200; for eight months, £134.

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* Scholars of this age will not be bound in any way, nor will the scholarships be awarded unless the present standard be maintained.

B.—640 "intending pupil-teachers" of 14—bursaries for 640 at £8⅔, £5,376; tuition fees and travelling expenses for 600 at £7 and 40 * at £10, £4,600. Approximate cost—for full year, £9,976 for eight months, £6,650.

C.—325 "intending pupil-teachers" of 15—bursaries for 325 at £10⅓, £3,315; tuition fees and travelling expenses for 300 at £6, and 25* at £10, £2,050. Approximate cost—for full year, £5,365; for eight months, £3,577.

300 pupil-teachers of 15—salaries of 215‡ at £14⅔, £3,100; tuition fees and travelling expenses—for 215 at £5, £1,075, for 85 at £5, £425. Approximate cost—for full year, £4,600; for eight months, £3,068.

D.—About 1,200 pupil-teachers of 16 and 17 now serving in the West Riding area (including non-county boroughs).

Estimated cost of Centres in the West Riding area under present conditions:—1st April to 31st July, 1904, £2,000; 1st August, 1904, to 31st March, 1905 (with increased Government grant), £2,000; payment for pupil-teachers attending Centres in county boroughs, £1,000; travelling expenses hitherto paid for pupil-teachers by School Boards and Managers in West Riding area, about, £1,600. Approximate cost for full year, £6,600.

Approximate total cost for eight months, £20,059. Apportionment under Part II. of the Act, £12,611; under Part III. £7,418.

Estimated Full-Working Cost.

SCHOLARSHIP AND EXHIBITION PERIOD. *Twelve to 13 Years.*—175 county minor scholarships at £11 10s., £2,000; 50 higher elementary school exhibitions at £5, £250; total, £2,250.

Thirteen to 14 Years.—175 county minor scholarships at £11 10s., £2,000; 50 higher elementary school exhibitions at £5, £250; total, £2,250.

"INTENDING PUPIL-TEACHER" PERIOD. *650 of 14-15 Years.*—150 county minor scholarships† at £11 10s., £1,725; 50 higher elementary school exhibitions† at £5, £250; 50 pupils of secondary schools† at £11 10s., £575; 400 "intending pupil-teachers" in preparatory classes attached to Pupil-Teacher Centres† at £7, £2,800; 650 bursaries at £8⅔, £5,460; total, £10,810.

650 of 15-16 Years.—Repeat items marked † above, £5,350; 650 bursaries at £10⅔, £6,760; total, £12,110.

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* Pupils already in attendance at secondary schools. . . .

‡ The remaining 85 would be serving in non-county boroughs, whose Councils would pay their salaries, thus involving no charge on the West Riding County Council.

PUPIL-TEACHER PERIOD. *600 of 16-17 Years.* — 175 pupil-teachers in secondary schools at £10, £1,750; 425 pupil-teachers in Pupil-Teacher Centres at £7, £2,975; 600 salaries at £17½, £10,500; total, £15,225: *less* 17/60 payable by non-county boroughs in respect of pupil-teachers employed at schools within their area, £4,315; nett total, £10,910.

600 of 17-18 Years.—175 pupil-teachers in secondary schools at £10, £1,750; 425 pupil-teachers in Pupil-Teacher Centres at £7, £2,975; 600 salaries at £21½, £12,900; total, £17,625: *less* $\frac{17}{60}$ payable by non-county boroughs in respect of pupil-teachers employed at schools within their area, £4,995; nett total, £12,630.

The total working cost of the scheme thus appears at £50,960, which would be apportioned—under Part II. of the Act, £26,420; under Part III., £24,540. Against this total must be set the following items which will be saved or (in the case of the Board of Education grant) credited to the County Council:—cost of maintenance of existing Centres, £6,500; fees paid by pupil-teachers now attending Centres in county boroughs, £528; present travelling expenses of pupil-teachers and candidates, £750; Board of Education Grant for "Local Science and Art Scholarships," £2,400; part increases of grants of Board of Education on new scale, £3,000; total £13,178. The nett cost of the scheme would thus be £37,782.

N.B.—The present salaries of existing pupil-teachers (amounting to some £24,000) will be saved; but, as the new pupil-teachers will do little actual service in the schools, there must be a corresponding increase of staff, which may be expected to absorb the whole, or the greater part, of this saving, but, on the other hand, will give increased efficiency. The total number of pupil-teachers and "intending pupil-teachers" under training at any one time would be under this scheme, 2,500.

IV.—SCHOLARSHIP SCHEMES OF LOCAL EDUCATION AUTHORITIES.

(1) SCHOLARSHIPS AT SECONDARY SCHOOLS FOR INTENDING PUPIL-TEACHERS.

(a) BATH.

(1) The Bath Education Authority offers for competition in June, 1904—(*a*) 30 scholarships tenable for two years, open to boys and girls who will be at least 14 years of age on 1st August, 1904; and (*b*) 30 scholarships tenable for three years, open to boys and girls who will be at least 13 years of age on 1st August, 1904.

* * * * * *

(2) Successful candidates will be required to be certified as physically fit by a medical man selected by the Authority.

(3) The scholarships will entitle holders to free tuition (including necessary books and apparatus) at a secondary school in Bath:—(*a*) in the case of scholars from elementary schools, at the Bath City Secondary School; (*b*) in the case of scholars from secondary schools, at an approved secondary school in Bath.

[NOTE.—The following schools have been approved by the Authority:—for boys, King Edward's School; for girls, the Bath High School and Duke Street School; for boys and girls, the Bath City Secondary School. The Authority will arrange for the inspection, with a view to approval for this purpose, of any other schools on application being made to the Town Clerk.]

(4) The course of study will be directed to the scholar passing at least the Oxford or Cambridge Local Examination for junior students, or some other approved examination.

(5) The Authority reserves the right to cancel the scholarship of any scholar whose progress or conduct is unsatisfactory.

(6) The parent of each scholar will be required to sign an agreement that the scholar shall continue the course of study for the full period for which the scholarship is granted, and at the end of that time shall, if qualified, become a pupil-teacher for two years in an elementary school in Bath, to be selected by the Authority on the advice of H.M. Inspector. In the selection of a school regard will be paid, as far as possible, to the wishes of the parent.

(7) In exceptional cases the scholarships may be extended for an additional year, the scholars then becoming pupil-teachers for one year only.

QUEEN ELIZABETH'S GRAMMAR SCHOOL, CRANBROOK (SCIENCE BUILDING). (*See page* 394)

(By kind permission of Mr. George M. Arnold, Chairman of Kent Education Committee.)

QUEEN ELIZABETH'S GRAMMAR SCHOOL, CRANBROOK. (*See page* 394.)

[By kind permission of Mr. George M. Arnold Chairman of Kent Education Committee.]

(8) If a scholar fail to become a pupil-teacher (for any other reason than ill-health, or failure in the qualifying examination, or cancellation of a scholarship) the parent will be required to repay to the Authority the sum expended by it on behalf of such scholar.

(9) The pupil-teacher agreement shall contain a proviso that after passing the King's Scholarship or other equivalent examination, the pupil-teacher shall, if required, remain in the service of the Authority as an assistant at scale salary until entrance into a training college, or for a period of two years, if not entering a training college.

* * * * * *

(10) In special circumstances a maintenance bursary or grant, not exceeding £5 a year, may be paid to a scholar at the discretion of the Authority.

* * * * * *

Syllabus of Competitive Examination.

The subjects of examination are as follow :—

(*a*) *Obligatory.*—Arithmetic (as far as Standard VI., Elementary Code), reading, composition and dictation, handwriting.

(*b*) *Optional.*—Not more than four of the following subjects (the questions being strictly elementary) may be selected . . . . :— English grammar, history, geography, drawing (freehand and geometrical), higher arithmetic, algebra, Latin, French, needlework, elementary science, botany.

(b) CHESHIRE.

(1) In order to provide a supply of suitable candidates for becoming pupil-teachers, the County Education Committee offers for competition 180 scholarships. These may be competed for by boys and girls who will not be more than 15 years or less than twelve years of age on August 1st, 1904, who are in attendance at any school, elementary or otherwise. The parents or guardians of the candidates must be resident in the administrative county, and have so resided for a least one year on April 1st, 1904.

(2) At the present time by far the greater number of the pupil-teachers in our schools are females. The Committee is anxious that more males shall become pupil-teachers, and, hence, at least 45 of the scholarships will be given to males and the remainder to females, provided these numbers qualify for scholarships.

(3) Each scholarship will be tenable for such a period as will bring the holder up to the age (16 in August of any year) necessary in order to be a pupil-teacher. The Higher Education Committee may, however, determine a scholarship at any time . . . .

(4) Each scholarship is of such value as to cover the cost of tuition and the travelling expenses (third class) incurred in journeying to and from the school, and also the cost of books used. For the last two years . . . . a grant for maintenance will be allowed, viz., in the case of boys, of £12 and £15, and in that of girls, of £10 and £12 respectively, to enable the parents to keep the scholarship holders at school until they can be apprenticed as pupil-teachers. The County Education Committee reserves to itself the right not to award a scholarship in whole or part, in the case of parents of pupils who are in such good circumstances as not to require the same.

(5) Each parent . . . . will be required to sign an agreement, undertaking that the holder of the scholarship shall become a pupil-teacher for at least two years in a school in the administrative county or, in default thereof, agreeing to refund to the Committee the cost incurred in regard to such scholarship.

(6) To ensure these scholarships being spread over the various parts of the county, a number shall be available to each borough and district area, in proportion mainly to its assessable value for county rate purposes. . . . . Should there not be a sufficient number of candidates qualifying from any of the boroughs or districts, then the vacant scholarships will be allotted to candidates from the other divisions, as selected by the Higher Education Committee.*

(7) Scholarships will be tenable at such schools as the Committee deem to be suitable and efficient . . . . capable of giving the education required to enable the scholar to pass the Preliminary Examination at the Universities of Liverpool and Manchester. A list of such schools will be drawn out by the Committee.

In the case of a parent desiring to have his child allocated to a school not in the county, the maximum sum allowed for fees and travelling expenses will be £9 in the first year, £12 in the second year and £15 in the third year.

(8) A scholarship must be held at the school selected by the Higher Education Committee. This will, as a rule, be the nearest one on the list . . . .

(9) The scholarships will be awarded on the result of an examination of *at least equal difficulty* to that required for the Sixth Standard of the Education Code in force, and held simultaneously at a number of convenient centres in the following subjects:— (i.) arithmetic; (ii.) composition, writing and spelling; (iii.) one

* The system of "Local Allocation" for these scholarships is similar (except as regards numbers) to that adopted for "Day Scholarships at Secondary Schools" (see pp. 336-7).

of the following, all being of equal value:—(*a*) freehand drawing, (*b*) plane geometry, (*c*) cookery (a paper of questions only), (*d*) needlework (a paper of questions, and an exercise to be worked previously); (iv.) one of the following, all of which are of equal value:—(*a*) English grammar, parsing and analysis, prefixes, etc.; (*b*) geography of the British Isles, with special reference to Cheshire, of which county the candidate will draw a map; (*c*) English history, from 1820 to the death of Queen Victoria; (*d*) algebra.

(10) A candidate will not be eligible for a scholarship unless the aggregate number of marks gained be equal to at least 60 per cent. of the total number obtainable.

(c) GLOUCESTERSHIRE.

(1) General Considerations.

It is desirable to give a certain number of scholarships, not at present definitely determinable, every year (see p. 331).

These scholarships should be usually tenable at a recognised secondary school near the scholar's place of abode, in the first instance for two years, by which time a scholar elected at the age of twelve will have reached the age of 14—an age by which, if he is not likely to profit by a prolonged secondary education, his instruction at the public cost may fairly cease. If during those years the scholar has done well, the scholarship should be renewed for a third and fourth year. The education during these years should be unspecialised, and should proceed upon the lines laid down for the scholars of secondary schools working under the Regulations of the Board of Education, in order that the conditions under which the South Kensington grants are awarded may be fulfilled.

Junior scholars should be taken under 13 years of age (except at the discretion of the Education Committee in exceptional cases) for two reasons:—(1) by that age really clever children will have worked their way to the VI. Standard, and will have got as much good as they can out of an elementary school; (2) clever scholars should enter the secondary schools at this age if they are to get the full benefit of a four years' course of instruction—if they enter later, they will lose time.

During the four years' training at the secondary school, a very few will have exhibited very marked artistic, literary or scientific tastes. These scholars should receive, for a suitable period, the advantages of an education providing a more specialised curriculum, and, at the end of that period, those who develop remarkable

ability should receive the means to further prosecute their studies. These advantages should be offered only to the very few who exhibit really remarkable ability, and the scholars should be rigorously weeded out year by year, if their conduct, their health, or their capacity should fail to justify the continuance of the assistance rendered.

Junior students, who, at the end of two years, show an aptitude and desire for the profession of teachers, should, on attaining the age of 16, be apprenticed as pupil-teachers for a period of two years, receiving meanwhile instruction at a Pupil-Teachers' Centre; or the period of apprenticeship might be omitted altogether and the scholars might continue their education at a recognised secondary school until the age of 18, when they should receive a senior scholarship of sufficient value to enable them to spend two years at a training college. . . . . But, from first to last, a weeding out of unsatisfactory scholars should (if necessary) take place every year.

The Committee should secure by some legal instrument, or otherwise, the services of each scholar, on the completion of his or her course, as teacher in a school within the county area for at least three or four years. The choice of scholars should be made partly by examination and partly by selection in such way as the Education Committee may from time to time determine.

Fifty per cent. of the scholarships should be allotted to the several areas into which the county will be divided for secondary education purposes, while the remaining 50 per cent. should be open to unrestricted competition. The election of scholars should take place once a year only at some convenient time in the summer.

* * * * * *

By the foregoing arrangements assistance will be given only (*a*) to the cream of the intellect of the rising generation; (*b*) to those who are able and willing to enter the teaching profession. This is right. In our own interest we must produce teachers; in the interest of the commonwealth we should take our share in extracting the intellectual cream of the country; but it is no part of our duty to push on a number of pupils of mediocre ability to swell the ranks of the Civil Service, or to compete for ordinary clerkships. By the support we shall give to certain secondary schools we shall make secondary education cheaper and more accessible than it is at present, and thereby we shall raise the general standard of education.

* * * * * *

The scholarships should in all cases have value enough to make the actual education, including books, etc., free; and the Education

Committee should have full power to increase their value sufficiently to cover (in whole or in part) the necessary travelling expenses incurred in attending the school and the cost of boarding out in cases where, owing to the distance from the secondary school, the scholar is unable to reside at home.

The Committee should have power in some cases, after careful inquiry, to add to the scholarship some form of allowance where "the parent cannot afford to keep his child from work throughout a long secondary school course, without some small supplementary aid in addition to the payment of school fees"; . . . . to withhold a scholarship when it is clear that the circumstances of the parent are such that the child cannot be regarded as a proper object of pecuniary aid.

It should be stated that there were on the 31st December, 1903, 249 pupil-teachers in our schools; which means that on the average about 80 are apprenticed every year. Of these 80, a certain number we expect will in the future be volunteers, whose education has been provided independently of our scholarships. The remaining vacancies must be filled by our own scholars. It is not possible to estimate exactly in what proportion our teachers will be derived from these two sources; possibly we may hope to get one volunteer to three scholars. If so, it would be necessary to make provision for 60 junior scholars in every year.

As the scholarships would commonly be tenable for four years (from twelve to 16 years of age), there would always be 240 junior scholars and 120 pupil-teachers between the ages of 16 and 18. Of these, perhaps, 50 would pass each year into a training college for a two years' course. Of these teachers under training, we should have, therefore, 100, or, in all, 460 scholars between the ages of twelve and 20. Besides the special scholars referred to above, and allowing for the Government grants receivable, this would represent an outlay of at least £3,000 a year.

(2) Specific Conditions and Regulations.

(1) About 60 junior scholarships will be offered in June, 1904, tenable at secondary schools approved by the Education Committee, of sufficient value to make the actual education, including travelling expenses, books, etc., free. The value may be increased at the discretion of the Education Committee where the distance from the school makes it necessary for the scholar to live away from home, or where special circumstances render it desirable. No scholarship may be held concurrently with any other scholarship, exhibition or similar emolument, unless with special consent.

(2) Candidates in future years will be required to be not more than twelve years of age (13, for 1904) on January 1st of the year in which the examination is held . . . . ; must have resided, or must be the children of persons who have resided, within the administrative county for a period not less than the twelve calendar months immediately preceding the date of the examination, and made not less than 350 attendances at one or more public elementary schools, or at one or more secondary schools, as pupils in its elementary course; . . . . provided that at least two-thirds of the scholarships shall be awarded to scholars in elementary schools.

Before the scholarships are awarded, each successful candidate will be required to furnish a certified copy of the register of birth.

(3) The amount of the school fees and other charges (including cost of books) which the scholarship is intended to meet will be paid direct to the authorities of the school selected, by whom arrangements for all necessary disbursements will be made.

(4) Five scholarships will be allotted to candidates from each of the five Parliamentary Divisions in the county (exclusive of Gloucester and Cheltenham), and five to the borough of Cheltenham. The remaining 30 scholarships will be open to candidates from any part of the administrative county (including Cheltenham). The Education Committee, however, reserve the power to withhold the awarding of any or all scholarships if there are not enough candidates possessing a sufficiently high standard of excellence; and, in the event of a deficiency of suitable candidates in any Division, to allot elsewhere the scholarships primarily reserved for such Division.

(5) The scholarships will be tenable at a suitable secondary school near the scholar's place of abode, within or without the county . . . .

[Here follows list of 15 approved schools; see "The Record" for April/June, 1904, p. 265.]

(6) The scholarships will be tenable in the first instance for two years, but will be renewable for a third or fourth year at the discretion of the Education Committee if the scholar has manifested an aptitude and desire for the profession of a teacher, or has shown such marked artistic, literary or scientific tastes to be likely to profit by a longer course, and in such latter cases the Committee shall have power at their own discretion to grant higher or continuation scholarships.

* * * * * *

(7) In the case of those scholars who elect at the age of 14 to pursue their studies with a view to becoming teachers, the parents

will be required to give an undertaking, before the scholarship is renewed, to refund, if called upon to do so, the value of the scholarship for the extended period, if at the age of 16, or at any earlier time, any scholar renounces his or her intention of becoming a teacher.

(8) At the age of 16 the scholars referred to in Clause 7 will either become pupil-teachers, and concurrently with their service in an elementary school, receive adequate instruction for at least half their school time at a Pupil-Teacher Centre for two years, or they will continue at a recognised secondary school until the age of 18, when, after passing the King's Scholarship or some equivalent examination, they will receive further scholarships to proceed to suitable training colleges approved by the Education Committee on giving in some manner, to be hereafter determined, an undertaking to give the Committee the first call upon their services for a period of not less than four years after the completion of the period of training.

* * * * * *

(9) There will be two examinations — the first a written examination and the second *vivâ voce*. Only those candidates who have satisfied the examiners in the first examination will be summoned to attend the second.

The Committee, however, reserve to themselves the power to award scholarships to boys and girls who have been excused either or both examinations, but have been selected in some other manner approved . . . .

(10) (*a*) The subjects of the first examination will be the elementary subjects prescribed for Standard VI. by Schedule I. of the Day School Code, viz.: — reading, composition and arithmetic; (*b*) the *vivâ voce* examination will be conducted as the Committee may direct.

* * * * * *

(11) The reasonable expenses (railway fare, etc.) of each candidate connected with attending the examinations will be defrayed by the Education Committee . . . .

(d) SALFORD.

The Education Committee offer 100 bursaries to boys and girls who will undertake to become candidates for engagement as pupil-teachers in Salford schools. About 75 of the bursaries will be for girls and 25 for boys, and the award will be made upon the results of an examination . . . .

The bursaries will be, for the first year, of the value of £15 in the case of boys and £10 in the case of girls, and they will be renewable, at the discretion of the Education Committee, for a second year. The value for the second year will be £20 in the case of boys and £15 in the case of girls. A small number of the bursaries may be awarded to candidates whose attainments, as shown by examination, fit them for entrance into the second year class, and who are also qualified by age.

No restrictions are laid down as to the residence of candidates, except that the Committee must be satisfied that the residence is within such distance as will allow the bursary holder to attend school regularly and punctually.

The following are the conditions subject to which the bursaries will be awarded:—

(1) Candidates must be not less than 14 years of age on the 1st day of August, 1904;

(2) They must produce a certificate as to character and general ability from the principal teacher of the school which they have last attended;

(3) Selected candidates will be required to produce a certificate of birth and to satisfy the Committee's Medical Officer as to physical fitness for the office of teacher;

(4) The holders of the first year bursaries will be required, during at least two years, to attend regularly at one of the Council's secondary schools, or at such other secondary day school as may in each case be approved—in the case of bursaries awarded for the second year, one year's attendance only will be required;

(5) Bursary holders will be required to produce half-yearly, or more frequently if required, satisfactory evidence of their diligence and proper progress in their studies;

(6) On the completion of the term covered by the bursary, the holder shall, if required, proceed to an engagement as a pupil-teacher in a Salford school . . . . for the full term (at present two years) stipulated by the Regulations of the Board of Education, during which period he will receive the remuneration provided by the scale;

(7) The Committee reserve to themselves absolute discretion as to the award of the bursaries and the conditions governing the same, the right to determine the duration of any bursary at any time and to select as pupil-teachers only those of the bursary holders who are able to pass an examination for entrance upon apprenticeship as pupil-teachers, and who fulfil such other requirements as to fitness as may be prescribed;

(8) The bursaries will run from the 1st of August, and the amount will be paid to the parent, or legally qualified guardian, by quarterly instalments due on the 30th September, the 31st December, the 31st March and the 30th June.

The parents or guardians will be required to enter into a guarantee that the foregoing conditions, so far as they affect the bursary holders, shall be observed, and that, in default, they will refund to the Committee all moneys paid in respect of the bursary.

Boys and girls at the time of the examination in attendance at a secondary school, other than a Council school, may, subject to approval, continue in attendance at such school. . . . .

Bursary holders will be required to pay a school fee of £3 per annum, if the bursaries are held at the Council's secondary schools, and to provide their own books. If held at other schools, the holders must pay the ordinary fees charged by those institutions.

The subjects of examination will be reading, dictation, arithmetic, English grammar, English composition; and not more than three of the following:—geography, English history, Euclid, algebra, French, Latin, elementary physics.

(2) GENERAL SCHEMES.

(a) CHESHIRE.

Introductory Remarks.

This complete scheme of scholarships has been adopted by the Higher Education Committee of the Cheshire County Council for the year 1904. The following general conditions are applicable to all classes of scholarships, those (called Class IV. in the scheme) tenable for short courses in dairy work and domestic subjects for females and the special scholarships in domestic economy for women not being considered in the category:—

(1) The parents or guardians of candidates must be resident in the administrative county, and have so resided for at least one year;

(2) The awards are made in the first instance for one year, but are open to renewal for a second and third year, subject to reports being satisfactory;

(3) Scholarships may be determined at any time if satisfaction is not given as to attendance, diligence, progress and conduct and as to the observance of the regulations;

(4) Reservation is made to refuse to award scholarships to those whose means or whose parents' means are such as to render assistance unnecessary;

(5) Scholarships may not be held concurrently with others, without special consent, and even then may be subject to a reduction in value.

Day Scholarships at Secondary Schools.

(1) 120 scholarships may be competed for by boys and girls not more than 14 years of age on August 1st, 1904, in attendance at elementary day schools up to date of examination. Pupils who are in attendance in the elementary course of a school conducted under Division A or Division B of the Regulations for Secondary Day Schools may compete. The awards to the latter class of competitors will not exceed 15 per cent of the whole. . . . .

* * * * * *

(2) VALUE.—Each scholarship is to cover the cost of tuition and the travelling expenses (third class) incurred in journeying to and from the school, but does not, in general, include the cost of books. At certain schools where the cost, or use of books, is included in the fees, such will be paid. The Committee will, however, consider any special application for the payment of books, or instruments, where it can be shown that such assistance is really necessary. . . . . The minimum amount paid on a scholarship will be for the first year, £9; for the second year, £12; and for the third year, £15. Should the amount required for fees, fares, etc., not equal this amount, the balance will be paid over to the parent. The Committee will consider the cases of necessitous parents, with a view to granting special help to assist in keeping their children at school through the full term of the scholarship, but such assistance . . . . . will depend on the balance remaining, as named above, to be handed over to the parent.

As the provision thus named is considered sufficient to meet the requirements of each scholarship holder, the parent or guardian of the winner of a county scholarship must . . . . sign an undertaking that, in the event of a "Local Science and Art Scholarship" being awarded by the Board of Education, all moneys due in respect of the latter shall be paid to and retained by the County Council.

(3) LOCAL ALLOCATION.—In order to give full opportunity to schools in all portions of the county to compete for these scholarships, and to ensure their being spread over the various parts of the county, a number of scholarships shall be available to each borough and district area in proportion to its assessable value

for county rate purposes. There will thus be available for pupils attending at schools in such boroughs and districts scholarships as follow :—

(i.) *Boroughs.*—Congleton, 1, Crewe, 6, Dukinfield, 2, Hyde, 5, Macclesfield, 4, Stalybridge, 4, Wallasey Urban District, 12, total, 34 ;

(ii.) *Other Areas.*—Ashton-under-Lyne and Stockport Union Areas, 8, Altrincham, Bowdon and Hale District, 7, Bebington and Neston District, 7, Chester Union Area, 4, Congleton Union Area, 5, Hayfield and Macclesfield Union Areas, 7, Hoylake and West Kirby District, 5, Knutsford and Wilmslow District, 4, Lymm District, 2, Middlewich and Winsford District, 4, Nantwich Union Area, 8, Northwich District, 7, Runcorn Urban District, 2, Runcorn Union Area, 6, Sale and Ashton-on-Mersey District, 5, Tarvin and Whitchurch Union Areas, 5, total, 86; grand total, 120.

Should there not be a sufficient number of candidates qualifying from any of these boroughs or districts, then the vacant scholarships will be allotted to candidates from the other divisions, as selected by the Committee. In allotting the scholarships to any district, due regard shall be had to candidates who have qualified from schools situate in the rural portions of such district.

The number of scholarships awarded to any one school or group of schools under the same management will not exceed the proportion laid down in the conditions for "Local Science and Art Scholarships" at page 365, par. (*a*) of the Supplementary Regulations issued by the Board of Education (1902).

(4) PLACES OF TENURE.—Scholarships will be tenable at :—

(i.) *Schools within the County.*—The girls' high schools at Macclesfield, Northwich, Sale, Stockport and Wallasey, and the Queen's School, Chester; the secondary schools held at the technical schools at Congleton, Crewe, Chester, Hyde, Runcorn, Stalybridge, Stockport and Winsford, and at the Birkenhead Institute; the grammar schools at Audlem, Calday Grange, Knutsford, Lymm, Macclesfield, Mottram-in-Longdendale, Nantwich, Northwich, Sandbach, Stockport, Weaverham and Wallasey.

(ii.) *Schools outside the County.*—Girls' High School and the Grammar School, Manchester; Science Day School, Whitworth Street, Manchester; Girls' High School and the Institute, Liverpool.

In the case of a parent desiring to have his child allocated to a school not in the county, the maximum sum allowed will be £9 in the first year, £12 in the second year and £15 in the third year.

A scholarship must be held at the school selected by the Committee. This will, as a rule, be the nearest one on the foregoing list. As one object of the scholarships is to provide suitable pupils for the secondary schools in the county, wherever possible scholarships should be held at schools in the county. In the case of a parent desiring, for some special reason, to have his child allocated to a school not within the county, notice must be forwarded in writing to the Director of Education within a fortnight after receiving notification of the award of the scholarship of the school at which it is desired the child shall be allowed to hold the scholarship, together with the reasons for the request. After the allocation of the scholarship holders to certain schools no change can be made.

(5) EXAMINATION.—The same as that for intending pupil-teachers and set out on pp. 328-9.

Evening Scholarships for Science, Art and Commercial Subjects.

The object in offering these scholarships is to give assistance to persons who are engaged in some occupation or business, and thus have only the evenings or Saturdays available in which to pursue their studies. Hence, not more than three scholarships in science, four in art and one in commercial subjects will be granted to applicants who are students at day classes or not employed in business.

(1) The scholarships offered consist of 30 for science and technological subjects, 30 for art subjects and six for commercial subjects.

(2) They are open to persons of either sex not less than 15 years of age on June 1st, 1904, attending during the session of 1903-4 some institute, school or class giving instruction in the subjects named, or who have taken up subjects by private tuition and sat for examination in the same.

(3) A scholarship is tenable for the winter sessions of one year, and covers the class fees and railway fares (third class) incurred in attending classes at some institution approved as providing suitable instruction in science, technological, art or commercial subjects. It does not cover books or instruments used.

The maximum amount paid on account of any one student will not exceed £5, and the minimum allowed will be £1. In cases where the amount required for fees, etc., does not equal the minimum sum allowed, the difference will be given for books or instruments purchased for study during the session; but this

amount will not be paid until the student has made at least 20 attendances and sat at the examinations.

(4) A person who has held a scholarship in this class for one year may be a candidate for a similar scholarship for a second year. In such a case an application must be made in the usual way, showing the number of attendances made and the results of the examinations taken at the end of the first year.

A scholarship, however, will not be granted to any person who has already held one in this class during two previous years in succession, or whose successes are not considered sufficiently high. *It is desirable that candidates shall have taken at least one subject in the advanced stage.*

(5) Each person awarded a scholarship will be required to submit a list showing the classes it is proposed to attend, and the times when each are held, *before entering for the same.* This list must contain at least one subject in the Advanced or Honours Stage. It is particularly desired that students will confine themselves to two or three subjects, and not attempt a number of subjects. When this list has been sanctioned it must be strictly adhered to, or payment of the scholarship will be withheld. The institution or school selected to be attended must be the nearest one available for the subjects required; special cases for deviating from this rule will be considered.

(6) . . . . The minimum of attendance accepted will be two hours per week; and all students *are required to sit at the examination held* at the close of the session in the subjects taken up, and to forward the results obtained in due course to the Director of Education.

(7) The applications of those who have held scholarships in this class for the one preceding year will be first considered, and such scholarships may be renewed, but not on work only in the Elementary Stage of subjects.

(8) Other candidates for the (*a*) science and art, (*b*) technological and (*c*) commercial scholarships must have taken some similar subject or subjects at the examinations respectively of (*a*) the Board of Education, (*b*) the Board of Education or the City Guilds Institute, (*c*) the Union of Lancashire and Cheshire Institutes or the Society of Arts. The scholarships will be awarded chiefly on the successes gained in those examinations. A list of any previous successes may be sent in as a guide as to the amount of training the candidate has had.

(9) . . . . The applications of candidates from rural districts or small urban districts, where good classes in science, art, technological and commercial subjects are not available, will receive special and careful attention.

Day Scholarships for Technology.

(1) The Committee offers for competition five scholarships tenable at the day classes in connection with the Municipal School of Technology, Manchester, or other similar institution approved.

The scholarship will enable the holders to take up the courses of study and practical work in connection with either (i.) mechanical or electrical engineering, (ii.) sanitary engineering and plumbing, (iii.) pure and applied chemistry, (iv.) the manufacture of textile fabrics, especially cotton, silk and mixed goods.

(2) CONDITIONS.—The scholarships are open to males not less than 15 years of age on October 1st, 1904, who may have been in attendance at schools outside the administrative county. Each scholar must devote all his time to the courses of instruction selected, and, unless prevented by ill-health . . . . make not less than 90 per cent. of the total possible attendances required in each class per session, and attend all examinations required. . . . . The course of instruction selected must be approved.

A parent, in accepting a scholarship for his son, will be required to sign an undertaking that he will keep him at the school for the period for which the scholarship is granted, and see that he is regular in his attendance and the regulations of the school thoroughly observed. Should he fail to keep this agreement, he shall undertake to return to the Committee the portion of fees and travelling expenses that have been paid for the unexpired portion of the year.

(3) VALUE.—The scholarships will cover the fees, etc., charged at the institution attended and railway fares (third class) incurred in travelling to and from the classes, but will not include (except in necessitous cases) books or instruments used. The maximum payment in any case will not exceed £40 for one year. Should a scholarship holder desire to reside near the institution attended, the amount that would otherwise have been expended in railway fares will be allowed towards the expense of board and lodgings.

(4) EXAMINATION.—The following subjects are included:—English, with questions in geography and history; mathematics; freehand drawing; general science—mechanics, physics, chemistry; Latin, French or German; the first three *must be taken*, and any one of the last three. The examination is intended as a test of general knowledge. . . . .

Day Scholarships at Universities.

(1) The Committee offers for competition eight scholarships tenable at the Universities of Manchester or Liverpool, or other similar institution approved. In all cases the nearest available institution giving instruction in the subjects required will be

selected. If it is desired to hold the scholarship at some special institution, application must be made to do so. In case such is granted, all expenses beyond those that would have been incurred by attending at the nearest institution selected by the Committee must be borne by the parents or applicant. Persons desirous of obtaining a thorough training in commercial subjects may enter for these scholarships, and, in case such a candidate succeeds in passing the examination, one of the scholarships will be awarded to him.

(2) CONDITIONS.—The scholarships are open to students of either sex not less than 16 or more than 22 years of age on September 1st, 1904. Persons who are already students at a university or a university college are not eligible to become candidates.

The other conditions are the same as those for the "Day Scholarships for Technology."

(3) VALUE.—The same as for the "Day Scholarships for Technology," but the maximum payment in any case will not exceed £50 for any one year.

(4) EXAMINATION. — This will be the Joint Matriculation Examination of the Universities of Manchester and Liverpool; all candidates who pass can enter the degree courses at either University. Candidates will be required to satisfy the examiners in the following subjects (as set forth in the Calendar of the University):—English language, English history and mathematics; three of the following subjects, one of which must be a language—Greek, Latin, French, German, elementary mechanics, elementary chemistry, geography (political and physical) or natural history.

The scholarships will be awarded to those standing highest in the order of merit, as having passed the Joint Matriculation Examination.

Day Scholarships for Art.

(1) The Committee offers for competition two day scholarships in art subjects at the Royal School of Art, South Kensington, or other similar institution approved. They are to enable students to devote their whole time to art studies, and it is hoped that special attention will be given to designing and the application of art to industry.

(2) CONDITIONS.—The scholarships are open to students of either sex not less than 16 or more than 26 years of age on September 1st, 1904. Candidates may have been in attendance at schools outside the administrative county. Persons who are already students at the Royal School of Art, South Kensington,

are not eligible as candidates. The holder in each case must submit a time-table, showing the subjects to be taken up and the hours to be devoted to each subject, which must provide for not less than 30 hours per week during the whole time the school is open during the year. The holder will not be permitted to undertake, during the tenure of the scholarship, any work, such as teaching, or accept any office of profit, except with the sanction of the Committee and of the Principal of the school attended.

(3) VALUE.—Each scholarship is of the maximum value of £50 per annum, and this sum will be paid, in two instalments, to a student holding a scholarship at the Royal School of Art, South Kensington. Should a person decide to hold it at an institution near home, it will cover the fees charged at the institution, and railway fares (third class) incurred in travelling, and the cost of materials used in the classes, provided the total of all these does not exceed £50 in one year.

The scholarships include any "Local Science or Art Exhibition" that may, by arrangement with the Board of Education, be awarded, and the parent or guardian of the winner of a county scholarship must sign an undertaking that in the event of a "Local Science and Art Scholarship" being awarded, all moneys due in respect of the latter shall be paid to and retained by the County Council.

(4) EXAMINATIONS.—The regulations of the Royal School of Art, South Kensington, now require a special test examination before being admitted as a student; hence, the person gaining a county scholarship will have also to submit to this test or entrance examination. Should he or she fail to pass this test, the county scholarship cannot be held there. The expenses incurred in attending this entrance examination must be borne by the student. . . . .

The scholarships will be awarded on the results of the following examinations of the Board of Education, South Kensington. . . . . The ordinary regulations of the Board will apply.

Compulsory Subjects. — Drawing from the antique, design, subject 23c (advanced), architecture, memory drawing of plant form. *Optional Subjects.*—Either Principles of Ornament (Advanced Stage) or Painting Ornament.

Day Scholarship for Music.

The scholarship is tenable at the Royal College of Music, Manchester, and is open to members of either sex of not less than 16 or more than 22 years of age on August 1st, 1904. Persons who have been students at the Royal College of Music for more than one year are not eligible.

The specific branch of study to be taken up by the student selected in 1904 is the piano or organ.

The scholarship will cover the fees charged by the Royal College of Music:—£30 per annum, and railway expenses (third class) incurred in travelling to and from Manchester; but the maximum amount paid in any case will not exceed £45 in one year, nor does it cover books or music required.

The examination will consist of (1) a written paper lasting two hours, the questions being entirely on the elements, which may be prepared from Davenport's "Elements of Music"; (2) a practical examination, when each candidate will be required to play certain pieces and to answer questions *vivâ voce*.

Scholarships for Agriculture and Horticulture.

(1) The Committee offers for competition 16 scholarships, specially suited for sons of farmers, labourers, gardeners and all interested in agriculture and horticulture.

(2) The scholarships will be tenable at the County Council Agricultural School and Experimental Farm established at Saltersford Hall, near Holmes Chapel Station, and will cover the expense of board and fees and the medical fee of £1 per annum. Special cases for exemption from payment for books will be considered.

(3) Persons accepting scholarships for their sons (who must be not less than 14 or more than 18 years of age on the 1st August, 1904) will be required to sign a form undertaking that they will not remove them from the school before the end of one year, and not after that without at least a term's notice, and, in case they should so remove them without giving such notice, undertaking to pay the fees for the term.

(4) The course of instruction pursued includes all subjects connected with farming and gardening. There is also instruction in practical work, both on the farm and in the garden, in which every pupil must take part. Instruction in woodwork and poultry-keeping and practical work in the chemical laboratory are provided. Special attention is given to fruit and flower culture and gardening in general.

(5) The examination will comprise the following subjects:—

(i.) arithmetic—at least equal to Standard VI.—one or two simple questions in mensuration will be added; (ii.) composition, writing and spelling; (iii.) freehand drawing *or* geometrical drawing; (iv.) *Optional Subjects* (one only)—(*a*) geography of England and Wales—special attention should be given to the

agricultural products imported and the countries from which they come; (*b*) principles of agriculture; (*c*) inorganic chemistry. A scholarship will not be awarded to any candidate who fails to gain an aggregate number of marks equal to 60 per cent. of the total number obtainable.

Special Scholarships for Women.

(1) Three scholarships for cookery, laundry work and dressmaking, tenable for 15 months at the School of Cookery and Domestic Economy, Chester, or other approved institution, commencing about January, 1905, are offered to candidates not less than 18 years of age on September 1st, 1904.

(2) The examination will consist of—(i.) a simple paper in arithmetic; (ii.) a paper on cookery, laundry work and dressmaking; (iii.) a *vivâ voce* examination in these subjects (2).

It is highly desirable the candidates should have some knowledge of physiology and hygiene; hence, intending candidates are strongly recommended to join classes in these subjects.

(b) MANCHESTER.

General Conditions and Regulations for 1904.

(1) The scholarships, bursaries and exhibitions are designated "The Manchester City Council" Scholarships, Bursaries and Exhibitions.

(2) The candidates must, at the time of nomination, have been *bonâ-fide* residents within the limits of the city of Manchester since the 1st January, 1904. Ratepayers, irrespective of residence, *whose names appear on the rate books as having occupied premises within the city for the same period*, are eligible, as also are their children. Children residing in Manchester for the purpose of attending a day school but whose parents are not ratepayers of the city are not eligible . . . .

(3) In the election of scholars, preference will be given to those candidates whose parents are in receipt of less than £500 per annum.

(4) The scholarships, bursaries and exhibitions awarded by the Education Committee will not be tenable with any others.

(5) While they are awarded, as a rule, on the results of examinations, the Committee does not bind itself to award them solely on such results, and reserves to itself the right to take other considerations into account. In all cases, the awards are made at the absolute discretion of the Committee, whose decision is final.

(6) The award or renewal is dependent on the candidates' attendance at the annual public meeting for the distribution of scholarship certificates, held in the Town Hall in the month of September.

(7) Scholarship certificates will not be granted to candidates who resign their scholarships.

(8) Scholarships are renewable from year to year at the absolute discretion of the Education Committee, subject to satisfactory reports from the authorities of the respective institutions of the conduct, progress and attainment of the scholars.

(9) The scholars must devote all their time to the courses of instruction selected, and must make an absolutely regular attendance. They must also attend such class or other examinations as are required, and observe the regulations laid down by the authorities of the respective institutions. During the tenure of their scholarships they will not be permitted to engage in any other occupation, or to attend classes other than those included in the scholarship course.

(10) The authorities of the respective institutions will furnish a statement of the conduct, progress and attendance of each scholar, at the end of each term, upon the satisfactory character of which further payments on account of each scholarship will depend.

(11) The scholar before entering upon the course of study selected must submit the proposed course for the approval of the Education Committee, and no deviation from this course may be made without the sanction of the Committee.

(12) One-half of the value of the scholarship will be paid upon the production of a certificate that the scholar has entered upon his course of study, one-fourth at the end of March and one-fourth at the end of August, subject to satisfactory reports.

(13) Holders of scholarships, or, in the case of minors, their parents or guardians, will be required before taking up their scholarships, bursaries or exhibitions to sign an acceptance of the conditions attached thereto. If a scholarship is vacated before the end of the session or school-year, the scholar, or the parent or guardian, will be required to refund the sums paid on his account for that session, and all payments are dependent on the fulfilment of the conditions set forth.

Free Admission to the Municipal Higher Elementary Schools.

(1) The higher elementary schools conducted by the Education Committee . . . . are organised as five-year schools, admitting children at not less than ten years of age and retaining them until the end of the school-year in which they reach the age

of 15. In order to afford facilities for parents who desire to keep their children at school until the latter age, and to secure that the pupils admitted shall have opportunities of benefiting by the whole course, the Committee offers a number of free admissions to the higher elementary schools on the results of a simple entrance examination.

(2) . . . . Candidates must:—(*a*) be the children of ratepayers of the city (see Regulation 2, page 344); (*b*) be not less than ten nor more than twelve years of age on the 1st day of July, 1904; (*c*) have been in attendance at a public elementary school or schools for at least two years immediately preceding the 1st day of July, 1904, and present a recommendation from the principal teacher of the school attended to the effect that the candidate is likely to benefit by a course in a higher elementary school (children already in attendance at a higher grade school are not eligible).

(3) The examination will include reading, writing from dictation, silent reading, arithmetic and grammar, and will be such as can be compassed without difficulty by a boy or girl who has passed with credit through Standard IV. of an ordinary elementary school . . . .

(4) In awarding the free admissions particular regard will be paid to the age of candidates and to the recommendation of the principal teacher of the elementary school previously attended.

(5) The number of free places available at any time in each school will not exceed 150, or 25 per cent. of the accommodation, whichever is less.

(6) In no case can a scholar be retained in a higher elementary school after the end of the school-year in which he reaches the age of 15.

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Bursaries at Higher Elementary Schools.

(1) In order to enable promising boys and girls already in the higher elementary schools to continue their education until the course is completed, that is, until the close of the school-year in which they are 15 years of age, the Committee offers the following 40 bursaries (ten at each school) to be awarded on the results of an examination.

(2) The bursaries will be . . . . of the value of £5 for the first year. If the scholar's conduct and progress are satisfactory, the bursary will be renewed for a second year and its value increased to £10.

(3) Half the bursaries awarded will be reserved for girls.

(4) In order to be eligible to compete, candidates must be (*a*) the children of ratepayers of the city (see Regulation 2, page 344); (*b*) in attendance at a higher elementary school; (*c*) not less than 13 years of age on the 1st day of July following the examination.

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(5) No bursary will be tenable beyond the end of the school-year in which the scholar reaches the age of 15 years.

(6) Bursary holders, unless already admitted free under the preceding section, or under previous regulations of the Committee, will be required to pay the ordinary school fees.

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Free Admission to the Municipal Secondary School.

(1) . . . . A number of free admissions to the Municipal Seconday School will be granted.

(2) The examination . . . . generally will be an ordinary Standard VI. examination, as set forth in the Code of the Board of Education. The subjects will be silent reading, writing and composition, arithmetic (mensuration for boys only), English grammar.

(3) . . . . Candidates must—(*a*) be children of ratepayers of the city (see Regulation 2, page 344); (*b*) be not less than twelve nor more than 14 years of age on the 1st day of August, 1904; (*c*) at the time of nomination have been in regular attendance in a public elementary school or schools in the city for at least twelve months (children in schools of science are not eligible); (*d*) submit a recommendation from the principal teacher of the public elementary school last attended that they are capable of profiting by the instruction . . . .

(4) In awarding free admissions, the Committee will have particular regard to the age of candidates and to the recommendation of the principal teacher of the school formerly attended.

(5) The privilege of free admission will be continued only so long as the parents of the scholars continue to be ratepayers of the city.

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Bursaries at the Municipal Secondary School.

(1) Twenty bursaries of the value of £10 per annum, tenable for not more than three years in the Municipal Secondary School, will be offered this year to boys and girls already in the school of science of the Central Municipal School, in order to enable promising boys and girls to continue their studies until the completion of the school course.

(2) They will be awarded on the results of a school examination among boys and girls in the school of science who have been at least two years in the Central Municipal School. The competition is not confined to children of ratepayers of the city.

(3) No bursary will be tenable beyond the end of the school-year in which the scholar reaches the age of 17 years.

Scholarships at Secondary Schools.

(1) In order to afford facilities for boys and girls, children of ratepayers of the city or residents therein, to enter a secondary school at the age of twelve years, and to continue therein until the age of 17 years or thereabouts, the Committee offers 20 scholarships . . . .

(2) They will be tenable for five years at the Manchester Grammar School, the Manchester High School for Girls, Dover Street, the Municipal Secondary School, or other approved public secondary school in the city and will increase in value from year to year, as follows:—£10 for the first year, £12 10s. for the second year, £15 for the third year, £17 10s. for the fourth year and £20 for the fifth year.

(3) The examination will be . . . . based on the work of Standard VII. of the Code of the Board of Education, the subjects being as follow:—reading, writing, dictation, silent reading, composition, arithmetic (Standard VII.), grammar or algebra, geography or history or elementary chemistry.

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(4) Each scholarship will be awarded in the first instance for one year, and may be renewed from year to year.

(5) . . . . Candidates must be not less than twelve and be under 13 years of age on the 1st day of July, 1904.

(6) Pupils already in attendance at the institutions named in par. (2) are not eligible to compete.

(7) Scholarship holders will be required to pay in all cases the ordinary fees of the institution they elect to attend.

Bursaries for Foundation Scholars.

(1) The Committee will grant a bursary of £10 per annum to each boy from the public elementary schools who gains a Foundation Scholarship at the Manchester Grammar School, and to each girl who gains a Foundation Scholarship at the Manchester High School for Girls, Dover Street.

(2) Bursary holders must be children of ratepayers (see Regulation 2, page 344).

(3) The Committee's bursary will not be paid to any scholar who is in receipt of a bursary from the Grammar School or the High School for Girls, Dover Street.

(4) The bursary will be paid during the continuance of the Foundation Scholarship. . . . .

(5) The first award of bursaries will be made on the results of the examinations for Foundation Scholarships at the respective institutions.

Mathematical and Language Scholarships.

(1) Three scholarships, of the value of £25 per annum for three years, will be offered annually.

(2) Two of these scholarships are offered to boys in the Municipal Secondary School who show exceptional mathematical or literary ability, in order to give them the opportunity of profiting by the special advantages available at the Manchester Grammar School for admission to the Universities of Oxford and Cambridge.

(3) Candidates must be at least 15 years of age and have been in attendance in the Municipal Secondary School not less than three years at the time of the award of the scholarship.

(4) The award will be determined by the progress of the boys during the whole period of their attendance at the Municipal Secondary School, and by the special position that they occupy in the school in the subjects of mathematics and languages respectively.

(5) One scholarship, tenable at the Manchester High School for Girls, Dover Street, and awarded on similar conditions, will be offered to girls in the Municipal Secondary School, in order to give them the opportunity of profiting by the special advantages available at the Girls' High School for admission to the Colleges of Newnham and Girton, Cambridge or Somerville College, Oxford.

Scholarships at the Municipal School of Technology.

(1) The Committee will . . . . award 20 scholarships, each of the annual value of £50, tenable for three years in the day departments of the Municipal School of Technology.

(2) Candidates must be not less than 16 nor more than 25 years of age on the date of entrance to the School of Technology . . . .

(3) Day students of the Municipal School of Technology previous to June 1st, 1904, are ineligible.

(4) Women candidates can only be admitted to the regular courses of the school, which extend over three years.

(5) The scholarships cannot be held with any other scholarship or exhibition; nor can a scholar, ... until he has completed his third year, compete for a City Council Scholarship tenable at the University of Manchester.

(6) The subjects of examination are:—English (including geography and history); mathematics in two stages; Latin, French or German; general science (including chemistry, mechanics and physics); model drawing; and freehand or geometrical drawing.

(7) The scholarships will be awarded upon the results of a competitive examination conducted by examiners appointed by the Committee, but not to any candidate who does not obtain a satisfactory number of marks, nor will any marks be counted in any subject which are less than one-fifth of the total marks obtainable in that subject.

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Day Scholarships at the Municipal School of Art.

(1) The Committee will . . . . award five scholarships, each of the annual value of £30, tenable for two years at the Municipal School of Art.

(2) Candidates must be not less than 14 nor more than 25 years of age at the date of entrance upon the scholarship.

(3) Day students of the Municipal School of Art previous to June 1st, 1904, are not eligible to compete.

(4) The scholarships cannot be held with any other scholarship or exhibition.

(5) The subjects of examination—are shading from the cast; group of models in outline; foliage from Nature; elementary antique (details of hands and feet in sepia).

(6) The scholarships will be awarded in the same manner as those tenable at the Municipal School of Technology.

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Scholarships at the University of Manchester.

(1) The Committee will . . . . award four scholarships, of the value of £60 per annum, tenable for three years at the University of Manchester.

(2) Candidates must be not be less than 16 years nor more than 25 years of age on the *date of entrance* into the University.

(3) The scholarships are not available in the Day Training Department of the University of Manchester.

(4) Scholars will be required to prepare themselves for graduation in the University of Manchester.

(5) Students of the University of Manchester or of any college of similar status previous to June 1st, 1904, are ineligible to compete.

(6) The scholarships cannot be held with any other scholarship or exhibition.

(7) The subjects of examination are: those required for the Matriculation Examination of the University of Manchester, namely—English language and English history; mathematics; three of the following (one of which must be a language)—Greek, Latin, French, German, elementary mechanics, chemistry, geography or natural history.

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Exhibitions at Training Colleges.

(1) In order to encourage pupil-teachers to enter upon a course of training at the end of their apprenticeship, the Committee offers 30 exhibitions of the annual value of £20 for two years—ten to men and 20 to women.

(2) The exhibitions will be tenable in an approved residential training college or in a hostel attached to a day training college.

(3) Eight of those for men and 15 of those for women will be awarded on the results of the King's Scholarship Examination, 1904; the remainder will be reserved for those who enter a training college in 1905 by means of the Matriculation or other examination recognised by the Code.

(4) The exhibitions will be restricted to pupil-teachers in the employment of the Committee.

(5) Exhibitioners must satisfy the requirements of the Board of Education with respect to health . . . .

(6) They will further be required to sign a declaration that, at the end of their period of training, they will return to the service of the Committee, if the Committee desires it, for a period at least equal to the period of tenure of the exhibition.

Evening Exhibitions.

(1) The Committee offers 100 evening exhibitions, giving free education, together with books, etc., for one session, at the evening classes of the Municipal School of Technology or the Municipal School of Art.

(2) The exhibitions are open to apprentices in attendance at evening continuation schools, and are awarded on the nomination of the principal teachers of the evening schools at the end of each evening school's session.

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(c) SHROPSHIRE.

(1) Preliminary Considerations.

In preparing the scholarship scheme, full consideration has been given to the fact that higher education may be sub-divided into two branches—(1) technical (and university) education and (2) secondary education.

TECHNICAL AND UNIVERSITY EDUCATION.—The object of scholarships in this branch is to assist really promising students who have received a secondary education by affording them an opportunity of availing themselves of the best possible teaching in science, arts (in the university sense of the term) and in technical subjects, and preferably in those in which the county is interested.

The three staple industries of the county are—(1) agriculture, employing 21,590 persons; (2) mining, employing 5,838 persons; (3) metallurgical, employing 8,026. There is little difficulty in providing for students requiring the highest technical instruction in these industries.

For agricultural students the Harper-Adams' College affords education of the greatest value. The county offers a £50 scholarship annually tenable there or at some university with an agricultural side. Also, the arrangement whereby a grant of £1,000 per annum is made to the college provides that three scholarships of £35 per annum shall be offered annually, tenable only at the college, a portion of the grant being set aside for this purpose.

Mining or metallurgy students are provided with a scholarship of £50 once in two years tenable at Birmingham or other approved university. Male students in science or in arts have the offer of the £50 scholarship alternately with the mining or metallurgical students.

There is also offered a £50 university exhibition for those who hold or have held an open scholarship at some university or college of university rank, without restriction of sex or future profession. There is, therefore, no reason why advantage should not be taken of this scholarship by a person who wishes to become a secondary teacher. In awarding this scholarship, special weight is attached to the applications of candidates showing the need of pecuniary assistance.

There is a £50 scholarship offered annually for women intending to pursue the study of science, arts or technical subjects at some university. Further, the county possesses in the Radbrook School an admirable centre for technical instruction in the domestic sciences. Eight scholarships of the value of £30, tenable for two

years, are awarded annually to girls over 13 years of age from elementary schools. Besides these, there are dairy scholarships awarded to those who have distinguished themselves in the itinerant dairy classes. These scholarships are generally held by the wives and daughters of farmers and dairymaids, to whom further instruction is given in dairywork and cheese-making.

SECONDARY EDUCATION.—The scholarships awarded in this branch have three objects:—first, to help the pupils who are at secondary schools already; secondly, to afford an opportunity for passing on from elementary to secondary schools those children who will be benefited by a secondary education; thirdly, to provide a nucleus from which the future pupil-teachers of the county may be drawn, whether they have received their early education in an elementary school or not.

To carry out this scheme of co-ordination thoroughly there is need of an adequate supply of secondary schools for boys and girls. The supply of efficient girls' schools in the county especially is very limited,* and there is also some reluctance on the part of proprietors of private girls' schools to admit scholars from elementary schools to their classes. These are matters of the first importance and urgently need attention.

For the education of boys the county is rather better provided with means in the grammar schools and other institutions, which have done good work in the past. Most of them require modernising and bringing up to date, but this may be done, in most cases, without a very large expenditure of capital, provided the Governing Bodies of the schools and the district in which they are situated are willing to share the expense.

The scheme provides for the establishment of 14 scholarships of £20, tenable, in equal numbers, by boys and girls already pupils of secondary schools, from whom the future winners of the university scholarships will be drawn, as in the past. Provision is also made in the case of younger boys and girls for 25 scholarships, to which bursaries may be attached in cases of necessity. Holders of these scholarships may exchange them for special pupil-teacher scholarships (to be established later): this should be encouraged, even if it should be found that most of the pupil-teacher scholarships are taken up by those who have entered secondary schools by means of the 56 scholarships described as Minor B Scholarships (see pp. 355-6).

The holders of this latter class of scholarships will be chosen partly by nomination and partly by restricted competition. After retaining these scholarships for two years, the holders have the

* See Preliminary Report on Secondary Schools in Shropshire by W. H. Pendlebury, M.A., F.C.S., in "The Record," January/March, 1904, No. 53, p. 49.

option of competing either for the Minor (A) Scholarships, or for the special pupil-teacher scholarships, which will be of such value as will afford free education together with a grant for maintenance, probably of the value of the present probationership. These scholarships will be tenable for two years, after which pupil-teachers will enter upon the active work of their profession. They will then still have to spend half their year at a secondary school or at central classes. The provision of training colleges for the next stage in their career may be safely left for future consideration. A combination of counties for this purpose and also the proximity of Birmingham University may offer solutions of this problem.

THE COST.—For the first year of the operation of the scheme the extra expenditure involved may be partly met by economy in the schemes for evening classes. . . . . If necessary, the remaining deficit may be made up from the fund accumulated by the former County Technical Instruction Committee. After the first year it will doubtless be clearer what help may be expected from Imperial sources. Any scheme adopted must, therefore, be of a temporary and tentative nature.

(2) The New Scheme.*

AGRICULTURAL SCHOLARSHIP.—A sum of £150 per annum will be devoted to founding a scholarship of the yearly value of £50, tenable for three years at the Harper-Adams College or other approved institution of university rank which has an agricultural side or department with a farm attached, to be competed for by youths between 16 and 19 years of age who signify their intention of pursuing agriculture as a vocation.

UNIVERSITY SCHOLARSHIP.—A sum of £150 will be devoted to founding a scholarship of the yearly value of £50, tenable for three years at a university or college of university rank or any approved institution where higher instruction in science, arts or technical subjects is provided, to be competed for by youths between 16 and 19 years of age. Once in two years preference will be given to a youth intending to pursue the study of mining or metallurgy at Birmingham University, or other approved university where facilities are afforded for the study of mining or metallurgy.

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* All scholarships are restricted to candidates who are *bonâ-fide* resident in the administrative county. The term "*bonâ-fide* resident" covers any candidate (*a*) whose parents or guardians are householders, or have been resident in the county for one year immediately preceding the date of the examination, (*b*) who has been at some boarding school in the county for two school years immediately preceding the end of the school term in which the examination is held, or (*c*) who has boarded in some house in the county for the purpose of attending school for two school years immediately preceding the end of the school term in which the examination is held.

UNIVERSITY EXHIBITION.—The exhibition is open to natives of Shropshire who hold or have held an open scholarship or exhibition at some university or college of university rank; also to persons who had been receiving their education within the county at least for the two years immediately preceding the time at which they joined the institution in which they hold or have held their qualifying scholarship. No one is eligible while holding a £50 County Council scholarship. In awarding the scholarship special regard will be had to a candidate's need of further pecuniary assistance. The exhibition is limited to candidates under 25, and is tenable at any university or college of university rank or approved training college for secondary teachers.

UNIVERSITY SCHOLARSHIP FOR GIRLS.—A sum of £150 per annum will be applied to founding a scholarship, for girls between 17 and 19 years of age, of the yearly value of £50, tenable for three years at some approved university or college, selected by the parents or guardians of the scholar, where higher instruction in science, arts or technical subjects suitable to girls is provided.

SCHOLARSHIPS AT SECONDARY SCHOOLS.—*Intermediate.*—A sum £840 per annum will be set aside for the establishment of 14 scholarships of the value of £20 each, tenable for two years (renewable for a third year), at an approved school within the county (or elsewhere in very exceptional cases) selected by the parents or guardians of the scholar. Seven of the scholarships will be offered to boys and seven to girls not exceeding 17 years of age.

Minor A (*for Pupils in Secondary Schools*).—A sum not exceeding £200 per annum will be set aside for the establishment of 25 scholarships, to pay the fees, or such portion of the fees as does not exceed £12 per annum in each case, of 13 boys and twelve girls under 14 years of age. The scholarships are offered for open competition amongst pupils at secondary schools throughout the administrative county and are tenable for two years (renewable for a third or fourth year) at an approved school within the county (or elsewhere in very exceptional cases) selected by the parents or guardians of the scholar. In addition, a further sum not exceeding £100 will be set apart for the establishment of bursaries to supplement the scholarships in cases where further pecuniary assistance is required.

Minor B (*for Pupils from Elementary Schools*).—A sum of £700 per annum will be set aside for the establishment of 56 scholarships (28 for boys and 28 for girls, being pupils not under twelve years of age in elementary schools within the county) to pay the fees of the secondary school selected, tenable for two years (renewable for a third year) at an approved school within the county (or elsewhere in very exceptional cases).

Candidates are to be nominated by the head-teachers in conjunction with the managers of their respective schools, and shall be required to pass a competitive examination (see below). They must have shown a capacity to profit by a secondary education, and preference will be given to those who intend to become pupil-teachers. Candidates from schools in rural districts will not be required to compete with those from schools in urban districts.

Local Allocation.—The scholarships will be allocated to the several urban and rural districts in the following proportions:—

(i.) Urban Districts:—Bishop's Castle 1, Bridgnorth 2, Ludlow 2, Oswestry 3, Shrewsbury 5, Wenlock 4, Church Stretton 1, Dawley 1, Ellesmere 1, Newport 1, Oakengates 2, Wellington 2, Wem 1, Whitchurch 2, total, 28; and

(ii.) Rural Districts:—Atcham 4, Bridgnorth 2, Cloebury (with Burford) 1, Chirbury 1, Church Stretton 2, Clun (with Teme) 1, Drayton 2, Ellesmere 2, Ludlow 2, Newport 2, Oswestry 3, Shifnal 2, Wellington 2, Wem 1, Whitchurch 1, total 28.

In default of suitable candidates from any district, the scholarships not awarded may be given to qualified candidates from other districts.

Examination.—It will be mainly based upon the requirements of Standard VI. of the Code in urban districts, or Standard V. in the case of rural districts; it will also include the work of the lower Standards. It will consist of two parts—(i.) preliminary subjects (compulsory) — arithmetic, composition, dictation and handwriting, a simple general knowledge paper; (ii.) final subjects (any three)—grammar, geography, history, domestic economy, drawing, needlework, agriculture, algebra, botany, elementary science, Latin, French, scripture.

One-third of the maximum number of marks must be obtained in each paper. No scholarship will be granted to a candidate who fails in any paper, or who does not obtain half the maximum marks in the aggregate for all the papers. An allowance for age will be made in considering the merits of candidates under 14.

Pupil-Teacher Scholarships.—At the expiration of two years' tenure of one of the Minor B scholarships the scholar may elect either to compete for one of the Minor A scholarships or, on declaring the intention of becoming a pupil-teacher, may, on the recommendation of the master or mistress of the secondary school attended, be admitted (after examination, if necessary) to a pupil-teacher scholarship, which shall be of such value as shall provide free tuition, together with such sum towards the maintenance of such scholar as may be determined. Nothing shall prevent the holder of a Minor A scholarship from exchanging it for one of the pupil-teacher scholarships.

SUMMARY OF SCHOLARSHIPS FOR AWARD BY THE SALOP COUNTY COUNCIL.

No. and Name of Scholarship.	Where Tenable.	Annual Value.	Duration.	Date of Examination.	Subjects of Examination.	Age of Candidates.	Total Value.
							£
1 Agricultural.	Agricultural colleges.	£50	3 years.	July.	English, agriculture, chemistry, mechanics, surveying, mensuration.	16 to 19.	150
1 Higher Science and Art (girls).	University or college.	£50	3 years.	July.	English history, geometry, arithmetic, and Latin, French or German.	17 to 20.	150
1 Science and Art.	University or technical college.	£50	3 years.	July.	English history, geography, languages, science, mathematics.	Ditto.	150
1 Exhibition.	University.	£50	3 years.	January.	..	None.	150
3 Agricultural.	Harper-Adams College.	£35	2 years.	July.	..	Over 16.	210
14 Science and Art (boys and girls).	Secondary schools in county.	£20	2 years.	July.	English history, geography, languages, science, mathematics.	Not over 17	560
10 Minor (A).	Ditto.	Exemption from fees.	2 years, renewable.	July.	Standard University Locals.	Under 14.	300
56 Minor (B).	Ditto.	Ditto.	2 years.	July.	Partly nominated—elementary.	Not under 12.	700
12 Dairy.	County Technical School for Girls	£12	8 weeks.	..	Dairy work.	Not under 16.	144
8 Domestic Economy.	Ditto.	£30	2 years.	April.	Elementary.	Over 13.	480
					Grand Total ..		£2,994

V.—THE ORGANISATION OF INDIVIDUAL SECONDARY SCHOOLS.

(Continued from "The Record," January, 1903).

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(8) THE GRAMMAR SCHOOL, STOURBRIDGE.

By Rupert Deakin, M.A., Head-master.

Early History.

Stourbridge Grammar School was founded by King Edward VI. in the year 1552. Although no records are in existence giving the history of the school, yet it would appear that the school has been carried on more or less continuously from the time of its foundation until the present day. This is shown by isolated events. About 1650 a library was presented to the school by a member of the Hickman family, and the folios belonging to this library are still preserved in a large cupboard in the class-room used by the Upper School. In 1662 the Head-master was one of the clergymen deprived of their livings under the Act of Uniformity. Again, Boswell tells us that Dr. Johnson served as an usher for two years in the school, and his initials are still shown in the oak dado which was removed into the class-room in 1861.

But, like many other grammar schools in England, the school sank to a very low ebb about 60 years ago, and tales are told of a time when it contained only two pupils. It is said that the then Head-master, being paid a fixed salary, preferred to have but few pupils under his charge; and with this object in view he usually gave every new boy a good caning on his first day at school, and was glad if this prevented the boy from appearing again. A great change, however, came over the school under the late Head-master, the Rev. W. J. J. Welch, M.A., M.D. Before his time the head-mastership was always attached to a curacy at St. Thomas' Church in Stourbridge. Dr. Welch was offered the choice of the curacy or of the head-mastership, and he chose the latter. In 1861, under his admistration, the school buildings, which consisted of a large schoolroom and houses for the head and the under-master, were re-fronted and enlarged. In 1878 a new scheme was issued,

THE GRAMMAR SCHOOL, STOURBRIDGE (EXTERIOR VIEW). (*See pages* 358 *and* 361.)

THE GRAMMAR SCHOOL, STOURBRIDGE (NEW SCIENCE BUILDINGS). (*See page* 361.)

and under this a chemical laboratory was added to the school buildings. The initial success of the school was largely due to the energy and ability of Dr. Welch. He was an excellent teacher, and he had the wise foresight to introduce into his school the study of modern languages and science when other educationists looked with fear and alarm on such innovations. Dr. Welch made a hobby of the study of experimental science, and was able himself to undertake all the science teaching in the school, while one of his classical pupils became Craven Scholar and Fellow of his College at Oxford, and another was Craven Scholar, Chancellor's Gold Medallist and Senior Classic at Cambridge.

The school owes much of its prosperity to the wise administration of its finances by the Governors. The buildings were gradually put into good repair, the playground was enlarged, a new heating apparatus provided, and an extra class-room built; yet all this was done out of revenue without encroaching on the capital funds belonging to the school.

The New Science Buildings.

In 1899 a new block of buildings, specially arranged for the teaching of science, was opened, and the cost of this addition to the premises, amounting to about £2,000, was provided out of the endowment fund. The furniture and fittings for these rooms have also been gradually paid for out of revenue with the assistance of small grants from the County Councils of Worcestershire and Staffordshire. These new science buildings, an exterior view of which is given on p. 360, comprise a science lecture room, a physical laboratory, a chemical laboratory and a room which was intended for a museum but is now used as a class-room. The laboratories each provide accommodation for 32 students, and the lecture room has seated and numbered places for 48 pupils.

Scope and Character of Work.

The school is arranged in three main Divisions, viz., Upper, Middle and Lower, the fees for day pupils being respectively £6, £8 and £10 per annum. The Head-master's assistant is allowed to take a few boarders. The school is organised in the interests of the vast majority of its boys, and great efforts have been made to give such an education as is required by persons residing in the surrounding district. There is no other secondary school for boys, either public or private, in the neighbourhood, and the school has, therefore, to supply the wants of several distinct classes. In the

first place there are a number of boys who use the school as a preparatory school for some of the large public boarding schools. Of recent years these boys have become less numerous and many of the young boys now stay on, since the school has been successful in gaining "open" scholarships at the universities. Again, all Stourbridge boys intended for professional life look to the school to give them the necessary preparation for their preliminary, and in some cases for their intermediate, examinations. The school is recognised by the Board of Education for the registration and training of secondary teachers, by the conjoint Board of Physicians and Surgeons for the teaching of chemistry and physics to medical students, and by the County Councils of Worcestershire and Staffordshire for the attendance of boys holding intermediate scholarships. There are always some boys in the school who are reading for the Matriculation Examination and the Intermediate Science or Arts Examinations of the London University; and the first Form in the Upper School consists of boys preparing for "open" scholarships at Oxford or Cambridge. But the great majority of the boys are intended for commercial life, and it is mainly for these that the general work of the school is arranged. The lower Forms in the Upper School are regularly sent up for the Cambridge Local Junior Examination. Great attention is paid to the teaching of natural science. The laboratories are commodious and well equipped, and most of the boys have four science lessons a week—two in physics and two in chemistry. German is taken as an alternative to Latin; French and drawing are taught in all Forms; vocal music, drilling and the rudiments of shorthand and typewriting are also included in the ordinary school course of instruction. Greek is optional and is only taken by boys proceeding to a university.

The school is staffed on the plan of providing masters who are severally specialists in some one branch of study. Mathematics is taught by the Head-master, classics by the Head-master and his assistant; modern languages, chemistry, physics and drawing are each taught by special masters. A boy who shows marked aptitude for any branch of study is, therefore, able to get expert teaching in that branch, and the success of the arrangement is shown by the fact that at the present time there are old pupils of the school holding "open" scholarships at the universities in classics, mathematics, natural science and commerce, and that for seven years every boy sent up for on "open" scholarship was successful at his first attempt.

SCHOLARSHIPS.—A great impetus was given towards raising the standard of work in the school by the foundation of two "close"

scholarships tenable at a university by boys who have attended the school for at least two years. The first of these scholarships was established in 1868 by Miss Walker, of Stourbridge, and the second in 1891 by Miss Hunt, of Belbroughton. There have always been boys ready to take these scholarships; but it was not till 1891 that the holder of a "close" scholarship also gained an "open" scholarship. Since that date neither the Walker nor the Hunt scholarship has ever been awarded without an "open" scholarship or exhibition having been previously gained at either Oxford or Cambridge.

A Local Industrial Collection.—An interesting and successful effort has been made towards forming a school collection of products illustrating local trades and industries. This collection is arranged in the lecture room of the new science buildings already described, and occupies a glass case along one end of the room. There is a sectional drawing of the coal seam found near Stourbridge, and specimens of coal out of each layer of coal are arranged in order, vertically, as they are found in Nature. At the present time the conversion of South Staffordshire coal into coke is one of the most important problems awaiting satisfactory solution. Specimens, of various kinds of coal and coke have, therefore, been collected. In the same section of the case are to be found about 80 different specimens of iron and steel, illustrating the manufacture in every stage. Another section of the case is devoted to the local brick trade. There are specimens of Stourbridge fire-clay in all stages of manufacture, of South Staffordshire blue bricks, of a bath enamelled over fire-clay, and of the materials and finished products of glass manufacture. With the ready help of local manufacturers specimens of the local industries, such as chains, spades, nails, scythes, anvils, pulley-blocks, harpoons, galvanised ironware, skin rugs, leather goods, etc., are being obtained. As a rule merely interesting objects and peculiar products are excluded, the intention being to provide illustrations of local trades and manufactures only.

Methods and Results of School Organisation.

During the last 20 years comparisons have constantly been made between English and German and American schools, and the lesson that appears to have been most generally learnt is that it is our first duty to provide sumptuous buildings, fitted with all kinds of apparatus, in order to ensure a good system of education. It would have been much better for England if we had realised more fully the fact that schools exist for the benefit of the pupils and not for the sake of the teachers, much less for the purpose of

having fine buildings to which visitors may be taken to be dazzled with their magnificence and costliness. A consequence of this attention to the outward trappings of education is that comparatively little attention has been paid to methods of teaching—secondary teachers are nearly all untrained—and we are constantly told that we must not examine our pupils to see whether they profit by our instruction. But yet little practical work has been done towards reducing the multiplicity of examinations. At the present time many of the universities in England are arranging a school-leaving examination, all on different lines, so that in a few years we shall have a larger number of examination tests than ever before.

Now at Stourbridge School a different course has been followed. The interests of the pupils and of the neighbourhood have always been the first consideration. New buildings and appliances have not been provided till they were actually wanted for use. Boys have never been sent up for examinations till they have reached an age when an external examination was likely to help their future careers. Boys in the Upper School all take at first the work prescribed for the Cambridge Junior Local Examinations, but they are not ready for this till they have spent two or three years at the school. No pupils have ever been sent up for the Preliminary Local Examinations, as such examinations of young boys are detrimental to their interests; nor have boys ever been allowed to enter for examination in single subjects, such as drawing, shorthand, etc. With regard to teaching, the genetic method, as it is called, is widely used in the school, and the standard set in each Form is such that the very worst boy can do fairly well, but every boy is expected to do his best.

This system of teaching has not found much favour in England. It is argued that by teaching down to the level of the worst boys the best boys are neglected and kept marking time. I believe this is a fallacy; and the following facts tend to prove that the objection is groundless.

As a rule, all the boys in the Third Form of the Upper School at Stourbridge enter for the Cambridge Local Junior Examination. Of the boys under 16 years of age who have been so examined, not only has every boy passed for the last ten years, but during the last few years the best boys have gained the following high positions among the 7,000 or 8,000 candidates usually examined all over England and the Colonies:—first place in arithmetic, twice; first in religious knowledge, twice; first in English, three times; second in English, twice; first in mathematics; fifth in mathematics, twice; second in Latin; third in chemistry; fourth

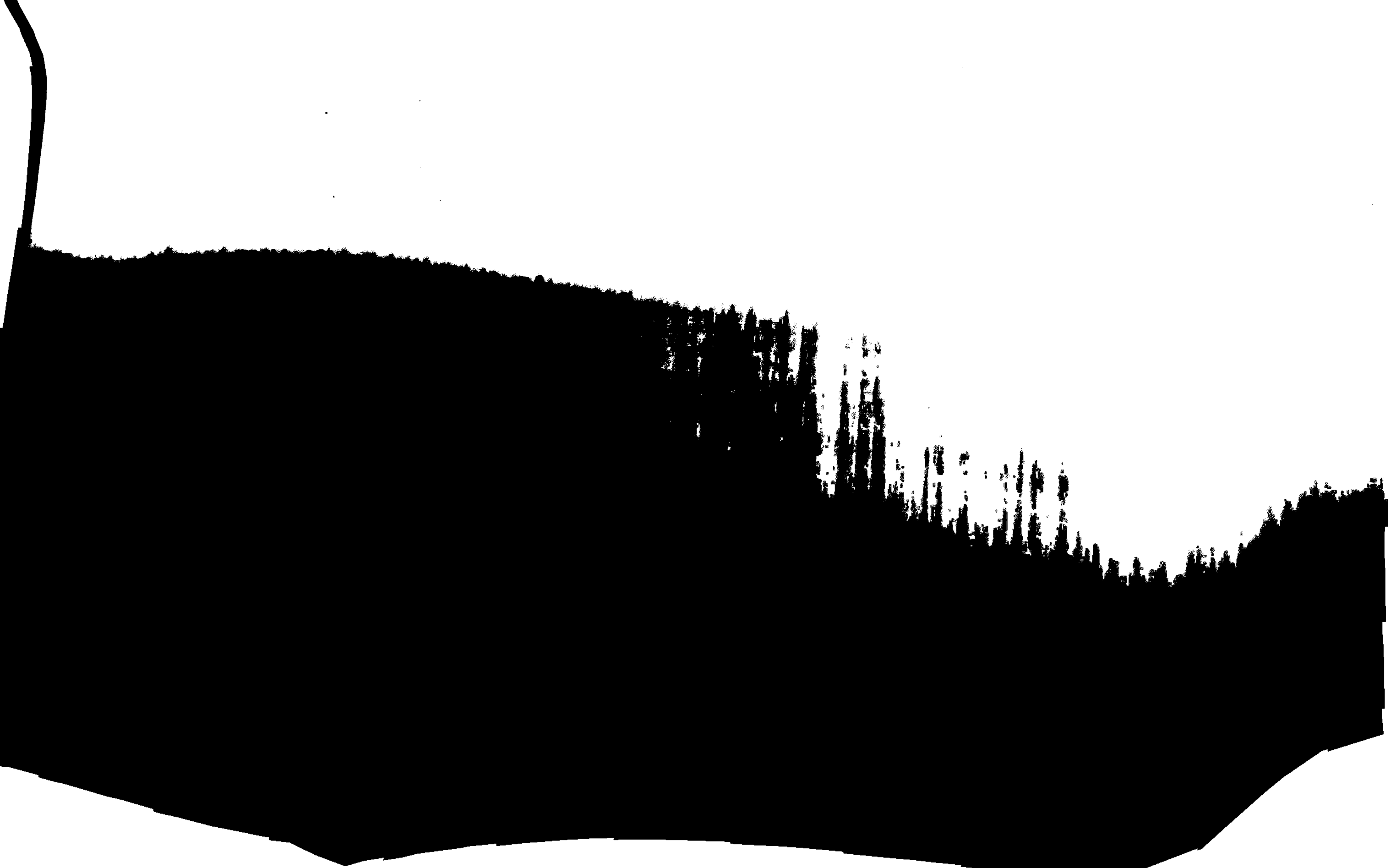
in heat and in physical geography; eleventh in drawing; twenty-first in French; and twenty-second in German. In December, 1899, the best junior boy in all England was a pupil at Stourbridge School.

The real result of teaching the worst boy in each Form would seem to be that the best boys in the Form are so thoroughly grounded in their elementary work that they are able to assimilate advanced knowledge without ever having to go back in their studies, whereas, generally, teachers in technical schools and in evening classes are always complaining that the pupils who come to them are not fitted to receive the instruction intended for them. The teacher of chemistry has to teach spelling and composition, and the teacher of physics must waste his time in teaching decimals and elementary arithmetic.

That the genetic method of teaching enables pupils to profit by more advanced tuition is also proved by the following achievements of Stourbridge boys. During the last five years they have gained six "open" scholarships at Oxford or Cambridge—three in mathematics, two in science, and one in classics; the first, thirteenth and fifteenth places in honours, with only one failure among fourteen candidates for the London Matriculation; and five successes and no failure in the Intermediate Science or Preliminary Scientific Examination at London University. Last year at Oxford the first in 1st class Mathematical Honours at Moderations and in the Final Honours School were both old Stourbridge boys, one having gained the University Junior Mathematical Scholarship in 1900 and the other in 1904.

It may, however, still be argued that the teaching at Stourbridge only produces good examination results. The following facts seem to meet this objection. All the grammar schools in Worcestershire were inspected in October last by Mr. Herbert Millington, M.A., who is one of the Board of Education Inspectors for secondary schools, and he presented a full report to the County Education Committee.* Mr. Millington speaks in severe terms of the Local Examination and examinations generally, but he places Stourbridge Grammar School "facile princeps" in the county, and says: "This is an admirable school, by far the best of all which have "come under our inspection. In fact it stands on a higher plane "than any others. The Head-master . . . . has devised this "system owing to his unwillingness to sacrifice the many to the "few, and has made it instrumental in creating a spirit of self-"reliance and a sense of responsibility which is of the highest "educational value."

* This report was fully dealt with in "The Record," No. 53 (January/March, 1904.)



WREIGHT'S SCHOOL FOR BOYS, FAVERSHAM. (*See page* 394.)

(By kind permission of Mr. George M. Arnold, Chairman of Kent Education Committee.)

VI.—MISCELLANEA.

TECHNICAL INSTRUCTION FOR WOMEN AND GIRLS.

A SUGGESTIVE INQUIRY IN LONDON.*

Introductory Remarks.

The late Technical Education Board of the London County Council did much to promote the technical instruction of women and girls in various forms. The rapid growth of the polytechnics and technical and other institutes, in consequence of the substantial grants offered by the Board, provided opportunities for developing educational facilities of various kinds for women and girls which would otherwise not have existed. These have been very largely utilised by the Board, as the brief summary of their efforts, given later on, will in some measure indicate. But with the purpose of still further encouraging the instruction of women and girls and of promoting it upon more comprehensive lines, the Board appointed in 1902 a special Sub-Committee "to inquire into and report upon "the requirements of women in respect of technical instruction and "the facilities afforded them, with special reference to London." The importance of taking some action of the kind is evidenced from the fact that there is a total number of 719,331 women and girls working at all trades in London. The Sub-Committee consisted of the then Chairman, Mr. Henry Ward, and Vice-Chairman, Mr. T. A. Organ, who were replaced later on by Mr. A. J. Shepheard and Mr. A. L. Leon respectively; and Messrs. J. R. Macdonald, H. R. Taylor (who became the substitute of Mr. C. James), F. W. Verney and Sidney Webb. Mr. Macdonald was elected Chairman of the Sub-Committee, whose report was issued to the public in December last.

General Education and Domestic Science Instruction.

In the forefront of the report the important statement occurs "that we could get little help from the study of foreign institutions, "as the women's technical schools in France, Germany, Belgium,

* London County Council: Technical Education Board: Report of the Special Sub-Committee on Technical Instruction for Women, presented to the Board 7th December, 1903 (London: P. S. King & Son, 6d.).

" Italy and Switzerland are day schools in which general education " and technical training are given together. Technical classes " like those carried on at the polytechnics in London, and work- " girl students like those who attend those classes, are practically " unknown on the Continent." Syllabuses of the French *ecole-professionnelles*, which have been established for the education of girls between the ages of twelve and 15 years, are given in the report, and there can be little doubt that there is some need for the establishment of similar schools in this country, or, at any rate, for the extension of the curriculum of some existing secondary and technical day schools upon somewhat similar lines. An example of what might be done in this direction is provided by the following syllabuses and time-table suggested for the technical day school for girls, which, it will be seen on p. 374, the London Board propose to establish at the Sydenham Technical Institute.

Syllabus A.*

First Year.

	Hours per week.
English, including composition, history, literature and geography	4
Arithmetic (the elementary principles of book-keeping should also be taught)	1
Technical drawing and practical geometry	3
Drawing (on the lines recommended by the Board's inspector for secondary schools) and clay modelling	2½
Some form of manual training, as woodwork, which will afford opportunities for applying material to the knowledge of technical drawing and geometry	2
Elementary experimental science, hygiene and physiology	3
Cookery: principles underlying the various methods by which food is cooked, to be taught in close connection with the science course	2½
Laundry-work (for utilitarian reasons)	1
Needlework in various forms: plain needlework, art needlework, dressmaking, millinery	5
Physical exercises	2
Total	26

* These syllabuses were submitted by Miss H. M. Smith, Lady Superintendent at the Borough Polytechnic, and by the London Technical Education Board's Lady Organiser of Domestic Economy Classes.

Syllabus and Time-Table B.*

First Year.

Drawing	2
Arithmetic	1½
Hygiene (including First Aid)	¾
English (composition and letter-writing)	1¾
Physical exercises	1½
Geography	¾
History	1
Needlework (all branches)	4½
†(*a*) Cookery	11¼
†(*b*) Laundry-work	4½
†(*b*) Chemistry	4½
†(*b*) Housewifery	2¼
Total	25

Second Year.

Drawing	2
Arithmetic	1½
Care of children and sick nursing	¾
English composition or literature	1¾
Physical exercises	2
Geography	¾
Citizenship	1
Cookery or laundry-work	2¼
Chemistry	4
Needlework and dressmaking	4
Trade or commercial class	5
Total	25

Third Year.

Chemistry or physics	4
Drawing (with special application to trade drawing, *e.g.*, for dresses, upholstery, flowers)	4
English literature or history, geography	1
Trade or commercial	10
Cookery or laundry-work	2
Dressmaking and needlework	2
Physical exercises	2
Total	25

* See Footnote on p. 370.

† These subjects to be taken in alternate weeks.

Suggested Time-Table for First Year.

9 to 9-45 a.m.

Monday.	*Tuesday.*	*Wednesday.*	*Thursday.*	*Friday.*
Arithmetic.	Hygiene.	Arithmetic.	Geography.	English.

(*a*) *First Week.*

9-45 to 12.

Cookery..... Whole week.

(*b*) *Second Week.*

9-45 to 12.

Laundry-work, two days.	Chemistry, two days.	Housewifery, one day.

Dinner.—*Washing-up done by the same class that takes cookery.*

2 to 3 p.m.

Monday.	*Tuesday.*	*Wednesday.*	*Thursday.*	*Friday.*
Drawing.	‡Needlework or Dressmaking.	Drawing.	‡Mending.	‡Needlework.

3 to 4 p.m.

History or Citizenship.	§Physical exercises.	English	§Physical exercises.	§Physical exercises.

Note.—The practical work, with the exception of needlework, has been put in the morning hours, because, in order that it may be of practical value, the cookery must be done then, and it is necessary to make the hours of other practical classes correspond; but the first three-quarters of an hour each morning could be given to arithmetic and other theoretical subjects. The time devoted to these subjects has been modified so as to make the arrangement of the time-table feasible.

Existing Facilities in London for Technical Instruction for Women.

These are classified in the Sub-Committee's report under eleven heads, and give some idea of the wide field of instruction already available to women and girls in London. As regards day and evening classes of a miscellaneous character, *e.g.*, commercial, scientific, art, these are generally open "on precisely the same terms to men and women alike," except those for obvious reasons necessarily confined to one or the other sex. In a number of cases the attendances of

‡ 2 to 3-30 p.m.
§ 3-30 to 4 p.m.

women and girls exceed those of men, particularly in connection with day classes. For instance, at Regent Street Polytechnic the day classes for adults are attended by 1,622 women and 1,235 men, while out of 15,000 students attending the evening classes over 4,500 are women and girls. In the advantages of the Board's scholarship scheme women and girls participate very largely. Of the ordinary county scholarships, 290 were gained during the last year by women and girls as against 412 by men and boys, and a good proportion of the art scholarships and exhibitions go to women and girls also; this is in addition, of course, to the scholarships open exclusively to women and girls, such as those for horticultural training and about 400 scholarships in domestic economy, besides scholarships for training teachers in the same subject tenable at the successful school of Battersea Polytechnic, which has yielded as many as 269 trained students (including 69 scholars of the Board) since its establishment in 1894. It is still more noteworthy, perhaps, that quite two-thirds of the 160 scholarships for teachers' training hitherto offered at the London Day Training College have fallen to women. Among the other facilities for instruction to which only a casual reference is necessary here are the training schools for women teachers of gymnastics at the South-Western and Battersea Polytechnics; a day college for women at the former institution, which, since 1897, has had nearly 1,500 occasional and regular pupils; afternoon and evening classes in domestic economy and allied subjects at an aggregate of 83 centres; as well as other classes specially reserved for members of certain trades in which women are interested.

Proposals for their further Development.

In the work of developing the existing facilities for the technical instruction of women and girls, there appear to be three main difficulties which must be faced. The first is that women are not eager to undergo a thorough technical training because they consider wage-earning to fall only casually to their lot. The second is that they often work so late in the factory or workshop as to debar them from attending evening classes, or, if able to attend, they prefer classes of a different character to those bearing upon their daily employment. The third difficulty is that upon leaving the elementary school, girls, much more than boys, get beyond those influences which might induce them to continue their education. With the view of endeavouring to overcome these difficulties, three proposals are suggested. They are respectively—the appointment of women teachers to women's classes, the

co-operation of employers by allowing their apprentices free-time, or time off, to attend technical classes, and a special effort to impress upon girls leaving elementary schools the necessity of undergoing some course of technical training. As regards the third of these proposals, a suggestion is put forward by the Women's Industrial Council that in the elementary schools there should be a permanent exhibit of the trades to which the girls of the neighbourhood can go, and that in connection with that exhibit there should be a suitable advertisement of the various germane classes held within a reasonable distance of the school. Special facilities might also be given by way of free studentships in such classes to girls who are either working in the trades or proposing to work in them.

In connection with the development of classes in domestic subjects, the Sub-Committee give a warning. Generally, the danger which besets these classes in various branches of domestic economy is that they may afford only technical practice. This should be carefully guarded against, and in every syllabus of domestic economy classes place should be found for the teaching of the principles which underlie the technical practice in the various subjects. It is impossible to join general education with technical practice when students only attend classes lasting for one session; but teachers ought to bear in mind that the more thoroughly the students are acquainted with the scientific and artistic principles upon which their domestic work rests the better will be the results of the class work done.

It has been found by actual experience that the success of trade classes depends very largely upon the attitude of employers. The opinion is held that such classes for women cannot be so largely attended proportionately as those for men, but it is also well pointed out that "the natural feeder of the trade and craft school is not the factory and workshop but the elementary school." It is suggested that there is a demand for the establishment of new classes in connection with artificial flower-making, gold embroidery, domestic hygiene and sanitary law, gymnastic training, boot-making, tailoring, stay-making, book-binding and for the training of day domestic helpers.

The most important of the Sub-Committee's proposals is, of course, the establishment of a technical day school for girls at Sydenham, already referred to, which is to be modelled upon the lines of Paris institutions. In connection with this school it is proposed that scholarships should be awarded similar in character to those which have been established for boys at the Shoreditch Technical Institute, providing free education and maintenance

HARVEY GRAMMAR SCHOOL, FOLKESTONE. (*See page* 394.)

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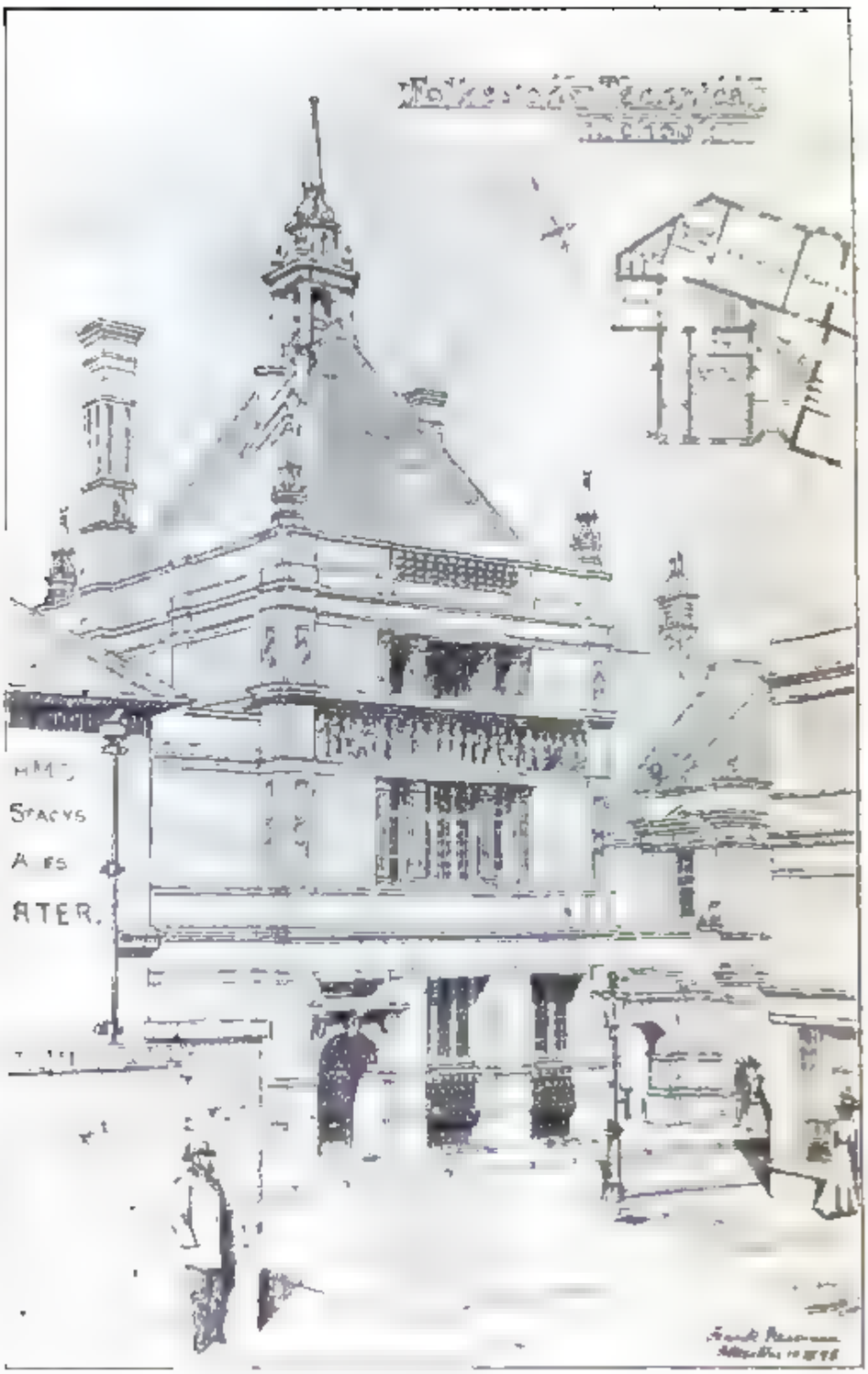

THE MUNICIPAL TECHNICAL SCHOOL, FOLKESTONE. (*See page* 394.)

(By kind permission of Mr. George M Arnold, Chairman of Kent Education Committee.)

grants of the value of £10, £15 and £20 a year, according to the age of the scholars, and that free studentships should be given to all who, upon leaving elementary schools, pass a qualifying examination.

Abridged Summary of Proposals.

(*a*) *General.*

(1) Managers of girls' clubs and societies, as well as the parents of pupils, should be invited to visit classes and exhibitions of work.

(2) Teachers, whether in trade or domestic economy classes, should be reminded of the importance of inducing their pupils to go through a thorough course of instruction in the subject taught, instead of confining their attention only to particular pieces of work needed for immediate use.

(3) Industrial design should be more closely associated with workshop practice and conditions.

(4) Having regard to the difficulty of women's attendance at trade classes, the numerical standard below which men's classes may not go should not be rigidly adhered to in women's classes.

(5) Pupils should receive at the end of their course certificates of attendance or written reports of work done.

(6) In technical day schools, or wherever a seasonable trade, such as artificial flower-making, is taught, the trade instruction should be associated with instruction in other branches of industry which would provide work in slack seasons.

(7) The formation of additional training schools for teachers of gymnastics should be encouraged.

(8) Classes should be established for the training of women in hygiene and sanitation with a view to their taking up the occupation of sanitary, workshop or public health inspectors, or of rent collectors.

(*b*) *Domestic Economy Schools and Classes.*

(9) In domestic economy schools more thorough instruction should be given, by the Board's lecturers as far as possible, in the care and management of infants and young children.

(10) Teachers should be asked to consider whether the present proportion of time allotted to teaching the practice and principles of laundry-work gives the best possible educational result.

(11) Pupils in domestic economy schools should receive lessons in writing business letters suitable to the occasions which are likely to arise in their own lives.

(12) Half-time scholarships should be offered in more schools than at present for girls who are occupied in the mornings.

(13) The arrangement of afternoon classes in domestic economy should be recommended to the Governors of polytechnics and technical institutes.

(14) Classes should be formed for teaching the marking and repair of household linen, and the mending of lace and fine materials.

(15) Day cookery classes should be connected, when possible, with the provision of meals at restaurants.

(16) Day or afternoon classes for the training of daily servants or charwomen should be conducted on the lines of those held by the Women's Industrial Council, an outline of whose syllabus of instruction is attached to the Sub-Committee's report.

(*c*) *Trade Classes.*

(17) Wherever possible, women should be employed as teachers of trade classes for women.

(18) More attention should be devoted to teaching the use of sewing machines of various kinds.

(19) The attention of Governing Bodies of technical institutes should be drawn to the desirability of opening book-binding classes for women, emphasis being laid upon the artistic part of the work.

(20) Dressmaking classes should be brought into closer touch with the art classes, pupils being encouraged to design their dresses and to work from the designs.

(21) Pupils in millinery, dressmaking, etc., should be encouraged to attend classes in commercial correspondence and book-keeping.

(22) As occasion offers, conferences should be arranged with employers of women; and such employers should be invited to attend exhibitions of work done and to pay visits to technical classes when at work.

(23) Efforts should be made to arrange in elementary schools exhibits of work done in technical classes, together with advertisements of such classes in the neighbourhood of the schools.

(24) Bodies having the control of apprenticeship funds should be urged to make the apprenticeship of girls to any firm conditional on the provision of such facilities for technical instruction.

(25) Above all, employers should be urged to make arrangements whereby their work-girls may attend technical classes during working hours.

(*d*) *Technical Day Schools for Girls.*

(26) Technical day schools for girls, with a course planned to cover three years, should be opened as opportunities offer, an experiment being made in the Sydenham Technical Institute; and these schools should be organised on the lines of the technical school for boys at the Shoreditch Technical Institute,* including in the curriculum both general and trade instruction.

GARDENING UNDER THE CODE.

THE SCHEME IN STAFFORDSHIRE.

The Staffordshire Education Committee have introduced the following scheme for instruction in cottage gardening† in public elementary day schools in accordance with the Code. It is only sanctioned in schools where a properly-qualified instructor is available. Last year there was only one public elementary school in the county elementary area in which cottage gardening was being taught as a subject recognised by the Board of Education. There are now 29 schools in which the Board have approved the arrangements for carrying out the county scheme.‡ In many cases no additional tools will be needed, as a county evening gardening class already exists.

It is necessary to arrange, in the case of small schools, for absence of the master in the garden without the rest of the school suffering. In some cases instruction has been given in the middle of the day; in others the younger boys are left in charge of an Article 68 or a pupil-teacher, the master occasionally paying a visit to the schoolhouse.

To obtain the right amount of land at a reasonable rent, it is evident, from negotiations which have actually taken place, that this cannot possibly be arranged from Stafford; nor is it in any way desirable that this should be done.

The Committee propose that the expenses, as specified on pp. 382-3, should be paid by the county, and that a sum of £6 should

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* Full particulars respecting the objects and curriculum of this school were published in "The Record," January, 1901, pp. 85-95.

† This subject is now called "Gardening" under the new Code for 1904. The remarks in the Editorial Notes on pp. 286-7 should be observed.

‡ There are 31 schools working under the scheme this summer, and most satisfactorily in all but one or two cases. Last summer, which fell before the "appointed day" for the new Education Act, there were only four schools where gardening was taught.

SUGGESTED PLANS FOR ELEMENTARY DAY SCHOOL GARDENING CLASS.

Thyme Edging.	Sage Edging.
Onions (Sow in March).	Broad Beans (Sow in March).
Carrots (Sow in April or May).	Parsnips (Sow in March).
Peas (Sow in April).	Early Potatoes (Plant in April).
Beet (Sow end of April).	Runner and Dwarf Beans (Sow end of April or beginning of May).
Late Potatoes (Plant in April).	Turnips (Sow in May and June).
Leeks, Cauliflower, Brussels Sprouts (Plant out when ready).	Cabbage, Savoy and Kale (Plant out when ready).
Plant out Lettuce.	Seed Bed for Leeks, Lettuce, Sprouts, Savoy, Cabbage, Kale, Cauliflower (Sow in March).
Sow Mustard, Cress and Radish.	
Sage Edging.	Parsley Edging.

The whole area about 300 square yards; centre path about 36 inches wide.

Alternative Plan for Cropping.

Thyme Edging.

Onions (Sow in March).
Broad Beans (Sow in March).
Parsnips (Sow in March).
Carrots (Sow in April or May).
Peas (Sow in April).
Potatoes (Plant in April).
Beet (Sow end of April).
Runner and Dwarf Beans (Sow end of April or beginning of May).
Turnips (Sow in May or June).
Leeks, Cauliflower and Brussels Sprouts (Plant out when ready).
Cabbage, Savoy, Leeks and Kale (Plant out when ready).
Seed Bed for Kale, Leeks, Sprouts and Cauliflower (Sow in March).
Plant out Lettuce. | Sow Lettuce, Mustard, Cress, Radish.

Sage Edging.

In this case each bed is divided by a path 18 inches wide, the whole area being about 300 square yards. The crop should be sown or planted in rows *across* each bed.

be offered to each body of managers for the payment of the teacher and the hire of the land. Thus, £5 at least should be offered to the teacher, in addition to his present salary, for the additional work in teaching the gardening class, and a sum of £1 would remain, out of which the rent could be paid. Five shillings rent for 300 square yards would be at the rate of about £4 an acre, but it is, of course, not easy to obtain a piece of land of the right size. The balance might be added to the teacher's salary, or expended in any other way the managers thought fit. The responsibility of obtaining the land must of necessity remain with the local managers.

The scheme is provisional, and may be modified by experience. It is desired, as far as possible, to simplify the curriculum in rural schools, and to provide suitable and practical teaching for country lads. As already intimated, it is proposed to allow instruction to be given only by such masters as are properly qualified.

The following suggestions of the County Horticultural Instructor have been adopted by the Committee:—

I suggest the day school be worked after the sketches submitted herewith, and not by individual pupils, as the evening gardening classes are carried on. The quantities of seeds and the tools mentioned should be ample for a garden 300 square yards or thereabouts, with from twelve to 20 pupils.

The Cost.

APPROXIMATE INITIAL COST OF TOOLS, TOOLHOUSE, ETC.

	£	s.	d.
Cost of first digging	0	10	0
1 Toolhouse (carriage paid)	2	10	0
1 Wheelbarrow	0	19	0
5 Spades (No. 1), at 3s. 1d.	0	15	5
3 Large forks, at 1s. 6d.	0	4	6
4 Small forks, for weeding, at 6d.	0	2	0
2 Garden trowels, at 11d.	0	1	10
3 Small rakes, at 1s. 4d.	0	4	0
3 Dutch hoes, at 1s. 5d.	0	4	3
3 Draw hoes, at 1s. 3d.	0	3	9
3 Large dibbers, at 4d.	0	1	0
6 Small dibbers, at 3d.	0	1	6
2 Water-pots, at 3s.	0	6	0
3 Measures, at 5d.	0	1	3
3 Garden lines and reels complete, at 1s. 9d.	0	5	3
1 Bill-hook	0	1	11
	£6	11	8

Approximate Annual Cost of Seeds, Etc. (exclusive of Rent).	£	s.	d.
7lb. Potatoes (Myatt's Prolific)	0	1	0
7lb. „ (Up-to-date)	0	1	0
½ Pint Peas (English Wonder)	0	0	4
½ „ (Gladstone)	0	0	6
½ Pint Broad Beans (Bunyard's Exhibition)	0	0	3
½ „ Runner Beans (Neal's Ne Plus Ultra)	0	0	3
¼ „ Dwarf Beans (Canadian Wonder)	0	0	2
1 Packet Parsnip (Hollow Crown)	0	0	1
1 „ Carrot (Intermediate)	0	0	2
1 „ Beet (Pragnell's Exhibition)	0	0	2
1 „ Turnip (White Stone)	0	0	2
1 „ Onion (James's Keeping)	0	0	2
1 „ Leek (Musselburgh)	0	0	1
1 „ Parsley (Myatt's Curled)	0	0	1
1 „ Lettuce (Paris White Cos)	0	0	1
1 „ „ (Cabbage, All-the-year-round)	0	0	1
1 „ Cauliflower (Autumn Giant)	0	0	2
1 „ Brussels Sprouts (The Wroxton)	0	0	1
1 „ Cabbage (Ellam's Early)	0	0	1
1 „ Savoy (Drumhead)	0	0	1
1 „ Kale (Green Curled)	0	0	1
1 „ Mustard	0	0	1
1 „ Cress	0	0	1
1 „ Radish	0	0	1
1 „ Sage	0	0	1
1 „ Thyme, 1d.; 100 wood labels, 7in., 1s.	0	1	1
Pea and bean sticks	0	5	0
Manure	0	7	0
Annual painting of toolhouse and barrow	0	6	0
Annual repairs and breakages	0	5	0
	£1	9	6

THE IRISH TECHNICAL ASSOCIATION.

ANNUAL CONGRESS AT DUBLIN.

The third annual Congress of representatives of Technical Instruction Committees of County Councils and other Local Authorities in Ireland, or the first Congress of these bodies since their combination as "the Irish Technical Association," was held at the City Hall, Dublin, on the 8th, 9th and 10th June, 1904. Over 100 delegates from all parts of the country were present during the sessions, including representatives of 21 County Councils, each of the six County Borough Councils and of 24 other Local Authorities, and of several educational and trade Associations. During the evening prior to the Congress, the annual meeting of the Irish Association of Principals of Technical Schools was held at the Royal College of Science.

The Congress was opened by the Lord Mayor of Dublin, who welcomed the delegates. The proceedings were subsequently presided over by the Chairman of the Dublin Committee, Mr. John Mulligan, who, on the morning of the first day, entertained the Association to luncheon. On that occasion the Rt. Hon. Sir Horace C. Plunkett, the Vice-President of the Department of Agriculture and Technical Instruction, delivered an address upon the work undertaken throughout the country. He gave some valuable statistics respecting the progress made in educational organisation. Apart from the important developments in the county boroughs, out of 33 urban district schemes, over 20 represented the creation of new technical schools suited to local needs. As a result of agreement with the Intermediate Education Board, the Department's programme of science and manual instruction had been adopted in no fewer than 247 secondary schools, and over 200 new laboratories had been equipped in connection therewith.

The Rev. P. J. Dowling, the Hon. Secretary, made a statement as to the growth and position of the Association and the influence it had already exerted in the interests of technical and agricultural education. He hoped that one of the chief objects of the Association—that active steps should be taken in each locality to give practical effect to the united opinions and recommendations—would be fulfilled. The number of affiliated Committees is now 51. The Standing Committee was re-elected for the ensuing year,

and it was unanimously agreed to accept the invitation of the Limerick Technical Instruction Committee to hold the Congress in that city in 1905.

Mr. L. E. O'Carroll, B.A., Director of the City of Dublin Technical Schools, reviewed the progress of technical instruction in Dublin, the pioneer city of the movement in Ireland. Two years before the passing of the Technical Instruction Act, the technical schools were opened with 220 students, and they now number over 2,000. The scheme in process of construction contemplates the establishment of two schools, and the arrangement of courses of instruction with due regard to the programmes of the College of Science, the School of Art and other institutions, while upon the equipment of secondary schools a sum of £5,000 is being expended.

A number of questions bearing upon the organisation of technical and industrial education were discussed during the sessions of the Congress and formal resolutions passed. Foremost among these were those dealing with finance. It was urged that the Treasury should grant annually a sum sufficient to provide for the repayment of the sinking fund and interest on loans for building suitable and permanent technical schools, which are so much needed in Ireland for the success of technical education; and that the full share of the grant for science and art should be secured for Ireland. It was advocated that there should be organised a complete system of continuation schools in the interests of technical education; that the necessity existed for bringing into closer touch with the technical schools pupils passing directly from the primary schools into industrial occupations; and, further, that there should be united action among educational authorities in establishing technical scholarships for promising pupils from the primary schools upwards. The Congress declared itself in favour of the Irish Department making provision for the training of teachers of trades and minor industries, and for aiding Technical Education Committees to undertake, by means of small deputations, investigations into the methods and products of foreign countries.

The usual votes of thanks terminated the proceedings.

SCHOLARSHIPS FROM ELEMENTARY TO SECONDARY SCHOOLS.

RESOLUTIONS OF THE NATIONAL UNION OF TEACHERS.

The following resolutions were adopted at the 35th Annual Conference of the National Union of Teachers held at Portsmouth from 4th to 7th April, 1904. Prior to the conference, they were submitted informally to the Board of Education. While expressing no opinion upon details, the President and Secretary of the Board hold that the proposals contained in resolutions (1) and (4) are most desirable and that the Board may render assistance in obtaining information upon the lines suggested in resolution (8).

Attention may here be drawn to the remarks in the Editorial Notes (pp. 284-6) upon the question of the award of scholarships generally.

(1) Every Local Authority under the Education Act, 1902, should be respectfully requested to prepare and publish, for gratuitous circulation amongst the older scholars of the elementary schools, a prospectus of all scholarships and exhibitions existing within its area, with full particulars respecting the same.

(2) Every public elementary school should have attached to it a number of scholarships, such number to be proportionate to the number of scholars enrolled at the school. These exhibitions should be awarded on the nomination of the teachers and managers.

(3) The remainder of the scholarships available for the area should be awarded afterwards by competitive examination, in which *viva voce* testing should play an important part among scholars in various schools within that area in manner hereinafter provided.

(4) The examination for scholarships should be of such a nature as to discourage preparation in a special scholarship class, as such form of preparation is to be deprecated, both on account of its effect on the scholarship candidates themselves and also on account of the injury inflicted on less intelligent children, who are thereby deprived of the stimulus of the brighter intellects. The selection should be made by teachers and examiners in co-operation. The tests should be both written and oral. The examination should invariably be based upon the curriculum of the school. Any

attempt to compel the school curriculum to adapt itself to scholarship requirements is to be deprecated.

(5) Every scholarship should be divided into two parts:—(*a*) educational, (*b*) maintenance. A reasonable guarantee should be given by the parents that the holder of the scholarship will retain it during the whole period for which it has been awarded. The maintenance portion may be taken up by the parents under conditions prescribed by the Education Authority.

(6) Scholarships should increase in value year by year when held by the same exhibitioner.

(7) It is most desirable that each Local Authority under the Education Act of 1902 should call into conference representatives of teachers in the schools concerned with issuing the regulations, syllabuses, examination test, etc., in connection with all scholarship schemes.

(8) A Parliamentary Return should be asked for setting forth the total amount of money at present available from all sources for the purposes of providing scholarships, bursaries and exhibitions from the elementary schools within the area to places of higher instruction in each Local Authority's area under the Education Act of 1902.

VI.—REVIEW.

HIGHER EDUCATION IN ENGLISH COUNTIES.

THE REVISED SCHEME IN KENT FOR 1904-5.*

After consideration in detail by a Special Committee, the Kent Education Committee have adopted a complete scheme, submitted by the Sub-Committee for Higher Education. It is now in actual operation, and will incur a total expenditure of £38,214, of which a sum of £28,000 represents the whole of the estimated receipts from the Residue Grant, and is to be appropriated for general secondary and technical education, while the remainder, being a balance from the same source, is to be allocated exclusively for the training of teachers; the receipts from other sources (*e.g.*, Board of Education grants, fees) cannot yet be estimated authentically. The scheme presents features of special interest in view of the complex nature of the county, the large number of urban centres raising many difficult problems. The method of adjustment of the respective claims of the urban and rural districts, and of the means of organisation within them, deserves, therefore, close attention.

This, it will be noticed, particularly affects the distribution of grants directly to Local Authorities and the award of scholarships, the latter leading automatically to an increase of expenditure in future years. As regards the Committee's policy towards secondary schools, it should be observed that private schools are to be debarred for the present from receiving grants of money, and that the betterment of the position of the teaching staff is placed in the forefront of the future programme of reorganisation suggested by the Sub-Committee.

The Training of Teachers, Pupil Teachers and Probationers.

It is acknowledged that in dealing with the training of probationers and pupil-teachers a certain amount of latitude will be needed. The problem, in the first instance a very indefinite one, is presenting fresh aspects almost from day to day. Local circumstances, which in some cases render the work easy, in other cases seem to present almost insuperable difficulties, while the Board of Education have issued fresh Regulations which will necessitate the undoing of some of the work already accomplished. The following proposals may need, therefore, a certain amount of modification.

Steps are being taken to bring the instruction of probationers and pupil-teachers into harmony with the scheme outlined by the Board of Education in the Regulations issued in July, 1903, and centralised instruction is being made as accessible as possible to all intending teachers. The Committee have assumed direct control of all the Centres and central classes in the area within their

* From the 5th Report of the Kent Education Committee, presented to the County Council on the 18th May, 1904.

THE MUNICIPAL SCHOOL OF ART, SCIENCE AND TECHNOLOGY, TUNBRIDGE WELLS. (*See page* 394.)

(By kind permission of Mr. George M. Arnold, Chairman of Kent Education Committee.)

THE MUNICIPAL TECHNICAL INSTITUTE, TONBRIDGE. (*See page* 394.)

(By kind permission of Mr George M. Arnold, Chairman of Kent Education Committee.)

jurisdiction, and . . . . look forward to the time when all the Pupil-Teachers' Centres of the county shall be in effect secondary schools or departments of secondary schools.

Pupil-teachers and probationers already attached to schools, or who may be admitted after examination, are entitled to free instruction at existing Centres and central classes, to a reduction of one-half in the price of all necessary books, and to travelling allowances in accordance with the following scale:—to those living—(1) within two miles of a Centre or central class, *nil;* (2) between two and six miles by road, *either* £4 for the first year and £2 for subsequent years towards the purchase and upkeep of a bicycle, *or* as (3); (3) at a distance greater than six miles, railway fares, season tickets being provided where desirable; (4) special arrangements to meet cases of exceptional difficulty, the travelling allowance for any one year not to exceed £4 usually.

The Committee have also inaugurated a scheme of studentships for young persons who intend to become pupil-teachers, such studentships to be tenable at approved secondary schools, and a certain proportion reserved for each of the sanitary areas of the county, provided sufficiently well-qualified candidates present themselves. For the present year these are as follow:—

100 studentships for boys and girls between 13 and 14 years of age on the 1st of August, 1904, residents in any part of the administrative county, covering the cost of tuition and travelling, together with an allowance for books, annually renewable, and, after the first year, supplemented by maintenance allowances of £4 for the second year, and £6 10s. for the third; parents or guardians will be required to make a declaration that the candidates have a *bonâ-fide* intention of becoming teachers.

Also 25 similar studentships for candidates between 14 and 15 years of age, covering two years' tuition, and 25 for candidates between 15 and 16 years of age, covering tuition for one year.

In addition, six training scholarships of the annual value of £25, tenable for two years at approved training colleges and institutions will be offered to pupil-teachers who have passed the King's Scholarship Examination, or other students intending to become elementary teachers, who are qualified to enter training colleges.

For the benefit of teachers serving under Articles 50 and 68 of the Code, the Committee are arranging, in connection with their Centres and central classes, for special classes on Saturdays, to which such teachers will be admitted for a fee of 10s. per term, necessary travelling expenses being allowed in accordance with the scale set out above.

This scheme for the instruction of intending teachers must be regarded as tentative only. The following estimate of expenditure has been already approved by the County Council:—maintenance of existing Centres, £3,000: extension of existing Centres, £1,500: maintenance cost of proposed new Centres, £1,500: travelling expenses at £2 per head, £1,500: books supplied at half-price, £400: studentships—100 at £11 10s., £1,150; 25 at £15 10s., £387 10s.; 25 at £18, £450: six training scholarships at £25, £150: contingencies (Summer Meeting at Wye College, £176 10s.): total, £10,214.

General Secondary and Technical Education.

URBAN DISTRICTS.—*Finance.*—The grants, general and special, hitherto made to urban districts have amounted to about £12,000 per annum. While withdrawing these grants as such, the Committee propose to expend in the urban districts a similar amount and to extend to such districts the scholarships

at secondary schools hitherto offered in rural districts only. This extension, together with assistance of not less than the present amount, to secondary schools in the towns, will involve a total expenditure for secondary and technical education in the urban districts of £14,000. The following are the towns with which it is proposed to deal on the footing suggested, certain contiguous towns being grouped for the purpose:—Ashford; Beckenham; Bexley; Bromley; Chatham; Dartford; Deal, Walmer and Sandwich; Dover; Erith; Faversham; Folkestone and Sandgate; Gillingham; Gravesend and Northfleet; Maidstone; Margate; Penge; Ramsgate; Rochester; Sheerness and Queenborough; Sittingbourne and Milton; Tonbridge; Tunbridge Wells and Southborough.

In arranging for this expenditure, the Committee will ask for a scheme from each district setting forth definite proposals as to the work to be undertaken and detailed estimates of the expenditure involved. When these schemes have been approved, the Committee will undertake the financial responsibility, taking all receipts and making all payments. In return for this, the Committee will require to be satisfied as to the qualifications of the proposed teachers, and will exercise their right of supervision by inspection and otherwise through their own officials.

Management.—Subject to this, the management will in all cases be entrusted to Local Committees acting as Sub-Committees of the County Committee. Such Sub-Committees must, in accordance with Sub-Section (6) of Part A of the First Schedule of the Education Act, 1902, have at least one member of the County Committee upon each. They should, as a practical measure, have other representatives (not necessarily members) of the County Committee.

The Committee, therefore, propose to arrange that in the "excepted districts" (*i.e.*, the districts which are autonomous for the purposes of Part III. of the Act) the Local Higher Education Sub-Committee, strengthened by the addition of a number (suitable to the circumstances of each case) of representatives of the County Committee, shall act as the Local Committee of Management for the purpose mentioned. Such Local Committee will be merely a Sub-Committee of the County Committee, and responsible to that body alone so long as the expenditure is confined to funds provided by the County Council.

In the event of the Urban Authority deciding to raise a rate for the purposes of higher education under Section 3 of the Act, and to contribute the amount, or part of it, towards the cost of the scheme adopted for the locality, such Local Committee should be properly constituted as a Joint Committee responsible to the two Authorities concerned. In the case of the other urban districts a Local Committee similarly constituted should be appointed under a scheme framed in accordance with Section 17 of the Act. Those urban districts which may determine that an Education Committee is unnecessary should be dealt with as part of the rural area, with the assistance of a small Local Committee specially appointed.

Sub-Committees thus arranged will be in close touch with the Local Authorities having in their respective districts concurrent powers with respect to higher education, and in the case of the "excepted districts" will thus be able to render valuable assistance in the very important work of co-ordinating all grades of education.

The Correlation of Evening School Work.—With this end in view every locality should possess as complete a scheme as possible of evening continuation classes suitable for, but not confined to, boys and girls under 16 who have lately left the elementary schools, providing instruction in elementary subjects in continuation of the work of the primary schools, and also lessons in other subjects to pupils sufficiently advanced to profit thereby.

THE MUNICIPAL SCHOOL OF ART, SCIENCE AND TECHNOLOGY AND DAY SECONDARY SCHOOL, DOVER. (*See page* 394.)

[By kind permission of Mr. George M. Arnold, Chairman of Kent Education Committee.]

Evening continuation work should be regarded as essentially distinct from, and wholly preliminary to, that properly undertaken by a technical institute. The Committee are, therefore, of opinion that—

(1) In urban districts an evening continuation school providing suitable instruction (including elementary subjects for pupils under 16) should form part of the scheme;

(2) Such evening continuation schools should, as far as possible, be kept distinct from the technical institute, and in particular subjects be made preparatory to the classes in the institute;

(3) No child in attendance at a public elementary school should be admitted to any such evening class;

(4) The classes in science, art and commercial subjects at the technical institute should be regarded as standing in the same relation to the secondary schools as the continuation classes to the elementary, pupils under 16, unless unusually advanced, not being admitted, but being received at the continuation classes, since their presence in any number in a technical school deters older students from joining.

RURAL DISTRICTS.—The Committee propose to allocate for secondary and technical education in the remainder of the county (called the "rural districts") the sum of £7,100. Though this does not bear a correct proportion (in view of population, it should be £9,500) to the amount allocated to urban districts, there is no doubt that the rural districts, at any rate those in proximity to the towns, will benefit from the expenditure in the towns. The sum is applicable for the following purposes:—(*a*) scholarships and aid to secondary schools, £1,000: (*b*) renewal of existing secondary scholarships, £1,200; (*c*) Domestic Economy School, Bromley, £1,200; (*d*) cottage gardening and allotment culture, £550; (*e*) boys' gardens (subsequently to be worked in connection with continuation classes), £150; (*f*) poultry-rearing, £500; (*g*) bee-keeping, £150; (*h*) evening schools (including domestic subjects, woodwork, art, etc.), £3,000—less Government grant, £650—£2,350; total £7,100.

This work it is proposed to deal with, as hitherto, directly from the Central Office, with the assistance of a small Local Committee specially appointed for each centre.

The revision made in the allocation will increase in the rural districts the expenditure on secondary education as distinguished from technical, chiefly on account of the further assistance to be afforded by scholarships.

THE WHOLE COUNTY.—The proposed expenditure available for the whole county, without distinction of urban and rural, is £6,900, divisible as follows: (*a*) Agriculture (3,850)—Grant to South-Eastern Agricultural College under agreement with Surrey County Council, £3,000; farriery, veterinary science, soil map (under control of the College authorities in consultation with the Committee), £350; scholarships, £500: (*b*) scholarships (£900)—higher (men six, women six, three of each for secondary teachers), £800; special (holiday courses, etc.), £100: (*c*) establishment expenses, £2,000: (*d*) contingencies, £150. *Summary* (£28,000)—urban districts, £14,000; rural districts, £7,100; the whole county, £6,900.

SECONDARY SCHOOLS.—The county of Kent, as a whole, may be said to be fairly well provided with public secondary schools for boys, but provision for the public secondary education of girls is distinctly insufficient. In view of this evident shortage, the Committee propose, at any rate for the present, to utilise in certain cases existing technical institutes during the day time for the purpose of girls' secondary day schools, where such schools are needed by the locality. The illustrations on pp. 272, 293-4, 305-6, 325-6, 368, 375-6, 389-90, and 393, will serve to indicate the character of the buildings of typical secondary

schools and municipal technical institutes aided from county funds (see Editorial Notes on p. 287).

Private Schools.—The Committee are not prepared at present to do more than allow county scholarships to be made tenable at such private institutions as may be approved by them, and to permit such institutions, upon proper payment and suitable guarantees, to use, for their pupils, the laboratories, lecture theatres, art rooms, gymnasiums, etc., in the public schools or institutions under the control of the Committee, where such use can be granted without interference with the Committee's own work.

Future Work.—The Sub-Committee suggest that increased financial assistance is urgently needed by many of the secondary schools in the county, and, had the Committee larger funds at their disposal, they would be prepared to recommend further expenditure under this head. . . . . The chief bar to thorough efficiency is the lack of funds for the following principal objects:—(1) to build and equip new schools; (2) to improve existing buildings and equipment; (3) to secure adequate remuneration and prospects for the teaching staff.

At present there is no regular scale of salaries for the teaching staff, and no attempt at a general pension scheme; and salaries depend in many cases upon the income of the school from year to year. The Sub-Committee suggest that a legitimate object on which public money can be spent is in connection with the increase of the salaries of the assistant teaching staff to a reasonable *minimum* scale. For assistant-masters such a scale would seem to be as follows:—those registered in Column B of the Teachers' Register, £150, rising by annual increments of £10 to £200; those not in Column B, £100, rising by annual increments of £5 to £150: with additional remuneration to heads of departments in large schools. Assistant-mistresses would receive remuneration at a slightly lower rate. The Sub-Committee feel that a pension scheme for assistant-masters and mistresses in secondary schools is highly desirable.

SCHOLARSHIPS.—The following is a summary of the scholarships offered, as mentioned in various parts of the foregoing scheme, other than those for the training of elementary school teachers, residence in the administrative county being, of course, a condition always imposed.

Agricultural.—Two scholarships of £60, and two of £30 a year each, open to males over 16 years of age, and tenable for two years at the South-Eastern Agricultural College, Wye.

At the Universities and other Approved Places of Higher Education.—Six scholarships of £60 a year each for men and six for women, open to students from 17 to 20 years of age, and tenable for two years, with possible extensions. For half of these scholarships preference will be given to candidates who intend to become teachers in secondary schools.

The scholarships at the Horticultural College, Swanley, are not renewed as a special class of scholarship, but any candidate who may obtain one of these higher scholarships may elect to hold the same at the College.

Modern Language Exhibitions.—A limited number, tenable at one of the centres mentioned in the official list of holiday courses published by the Board of Education, to be awarded to English teachers of modern languages in secondary schools or other approved candidates.

At Grammar and other Secondary Schools.—(*a*) 70 junior scholarships (50 for boys and 20 for girls), each covering the cost of tuition and travelling, together with an allowance for books, but not exceeding £20 in annual value, open to pupils under 13 years in elementary schools, and tenable for two years, with an extension for a third year on satisfactory reports respecting progress and conduct; (*b*) 20 senior scholarships, similarly estimated, with an additional allowance of £5,

but not exceeding £25 in total annual value, open to boys and girls under 16, and tenable for two years, with a possible extension for a third year. A certain proportion of scholarships, both (*a*) and (*b*), to be reserved for candidates from country districts.

For the purpose of the award of the scholarships the county has been divided as follows :—

(i.) Excepted districts, viz. :—Beckenham, Bromley, Chatham, Deal, Dover, Erith, Faversham, Folkestone, Gillingham, Gravesend, Maidstone, Margate, Penge, Ramsgate, Rochester and Tunbridge Wells.

(ii.) Other Urban Districts, viz. :—Ashford, Bexley, Broadstairs, Cheriton, Chislehurst, Dartford, Footscray, Herne Bay, Hythe, Milton-next-Sittingbourne, Northfleet, Sevenoaks, Sheerness, Sittingbourne, Southborough, Tonbridge, Walmer and Whitstable.

(iii.) Rural Districts, including the following towns:—Lydd, New Romney, Queenborough, Sandgate, Sandwich, Tenderden and Wrotham.

Among these districts the scholarships have been thus allocated:—to the "Excepted Districts," 24 junior scholarships for boys and ten for girls, and ten senior scholarships; to the "Other Urban Districts," ten junior scholarships for boys and three for girls, and three senior scholarships; to the "Rural Districts," 16 junior scholarships for boys and seven for girls, and seven senior scholarships.

The Committee's arrangements will allow of the tenure of scholarships in particular cases at suitable private schools.

For Domestic Economy.—There are 30 free places at the Domestic Economy School, Bromley, available for the session of 36 weeks for girls between the ages of 13 and 16 years, resident in the rural districts.

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THE Association for the Promotion of Technical (including Commercial and Agricultural) Education aims at encouraging those educational reforms which will improve the capacity, in a broad sense, of all those upon whom our industries depend. Its object is not to interfere with the teaching of trades in workshops, or with the industrial and commercial training in the manufactory and in the warehouse. It desires (1) to develop increased general dexterity of hand and eye among the young, which may be especially useful to those who have to earn their own livelihood, and at the same time improve rather than hinder their general education; (2) to bring about more widespread and thorough knowledge of those principles of science and art which underlie much of the industrial work of the nation; (3) to encourage better secondary instruction generally, which will include more effective teaching of foreign languages and science for those who have to guide our commercial relations abroad, and to develop our industries at home. With these and similar objects in view, the Association desires to bring about an improved organisation of the Industrial Education of both sexes in accordance with the needs of various districts. One of its main purposes is to stimulate public opinion by encouraging consultation and discussion between the representatives of various localities on the subject generally, and on any legislation that may be proposed, by conferences and meetings in various towns and villages; and by the diffusion of information in a cheap and popular form. The Association wishes, where it can do so, to make better known the work of existing institutions, and to act in harmony with all those who are interested in bringing about more effective progress in a matter of the utmost importance to the country.

The Association does not pledge itself in detail to all the opinions expressed or quoted in its publications, but aims at providing by their means information worthy of careful consideration.

GIRLS' ENDOWED SCHOOL, SKIPTON (SCHOOL AND SANATORIUM). (*See page* 418.)

DEC 27 1934
CAMBRIDGE, MASS.

I.—EDITORIAL NOTES.

It is gratifying to notice that the lines of advancement made possible by the Education Acts of 1902 and 1903 are being more fully recognised every day. The measures that are being taken to utilise the Acts to the uttermost for the establishment of complete schemes of education afford unmistakable evidence of that quickened zeal for which educationalists have waited so long. In short, Local Education Authorities are being urged forward by their sense of responsibility; and the descriptive accounts relative to higher education in various English counties which go to form a considerable portion of our present number faithfully indicate that those Authorities are fully alive to the vital importance of immediate action in that particular field. Many glaring defects in the supply of secondary schools and of secondary education generally are revealed; and especially is this the case when we consider that branch of education upon which depends the evolution of a truly national and efficient system, namely, the training of teachers.

* * * * * *

It would appear that the serious inadequacy of the existing facilities for higher education is almost universal. From the premier counties in size and population, such as the West Riding of Yorkshire and Lancashire (see reports on pp. 417-57), to the rural counties, such as Norfolk (dealt with by Mr. F. H. Millington on pp. 458-92) and Oxfordshire (reviewed on pp. 539-44), many similar deficiencies are noticeable; and in this connection we would draw attention to the references (on pp. 430, 452, 474, 475, 539-40) to the policy adopted towards private and proprietary schools in these four counties. Without in any way depreciating the value of the reports of this nature issued from time to time by the various Local Education Authorities, we trust that we may refer to the report of the West Riding Higher Education Sub-Committee as one of those remarkable documents from which very helpful guidance may be obtained not only now but hereafter. The intimation of the fact that it bears the impress of

the Right Hon. Arthur H. D. Acland would alone secure for it a position as a trustworthy *vade mecum*; but a consultation of the document itself cannot fail to strengthen opinion as to its value to educationalists and administrators alike.

* * * * * *

The question as to whether there will or will not be real progress in grappling with the issues thus made manifest is largely dependent upon the financial problem. Happily, as intimated already, Local Education Authorities have not been afraid to look at their responsibilities frankly. It is true that some County Councils—*e.g.*, Gloucestershire, Kent, Northumberland—are only having recourse, as a temporary means of assistance, to the accumulations from the Residue Grant prior to the passing of the Education Act, 1902, and are not proposing to levy county rates. But capital outlay will necessarily involve increased expenditure for maintenance, and the majority of County Councils who are considering the early adoption of proposals for the development of secondary schools are, therefore, levying county rates, or have decided to levy them under Part II. of the Act. The following particulars, which refer mainly to the current year 1904-5, and which must be considered as approximate only, indicate to some extent the action taken in the *administrative counties* in this direction; and it is quite apparent that, at the lowest computation, the amount of money being raised by rate for higher education in the administrative counties named below already exceeds the aggregate amount ever raised, in any one year, under the Technical Instruction Acts by *all* the Local Authorities throughout England and Wales.

* * * * * *

In Cheshire a two-penny rate, which is estimated to produce £22,500; Middlesex a penny half-penny rate is contemplated, and will produce £35,000; Lancashire a penny farthing rate, to produce £44,400; Warwickshire a penny rate, to produce £3,918, half of which is to be applied to the training of pupil-teachers. In nine counties a half-penny rate, *i.e.*, Buckinghamshire; Cornwall, to produce £2,230; Derbyshire, for the current half-year; in Devon it is contemplated, if a secondary school scheme is adopted involving a capital expenditure of between £50,000 and £60,000; Essex for the second half of the current year (in the previous half-year it was one farthing); Leicestershire, to produce £4,548; Surrey, to

produce £8,923; and Wiltshire, to produce £2,733. In Somerset a farthing rate for the current half-year for the training of pupil-teachers, with a view to its re-imposition for the second half-year. In the West Riding of Yorkshire a rate of ·5 of a penny for each of the first and second halves of the current year. In Norfolk the levying of a county rate has been sanctioned, and also in the North Riding of Yorkshire for next year. With respect to Wales, the Intermediate Education Act is still operative, the powers and duties of the County Governing Bodies having been transferred under the Education Act, 1902, to the new Education Committees. The half-penny rate under the Welsh Act is universally levied in the administrative counties. In addition, in at least two counties rates for higher education generally are being or are about to be levied: in Carnarvonshire a three-farthing rate, to produce £2,100; and in Denbighshire a rate of one penny and three-eighths. None of the above amounts include those special rates which are being levied by County Authorities over individual districts, or those levied by smaller Authorities possessing concurrent powers under Section 3 of the Act of 1902.

* * * * * *

The London County Council have had their powers severely taxed by the task of taking over all the elementary schools of London; but, even so, they have not been prevented from making efforts to utilise to some extent the increased powers which the Education (London) Act has devolved upon them in the domain of higher education. The problems connected with the organisation and development of secondary education are so complex that a Local Education Authority can hardly be expected to make very rapid progress with them at first; but we understand that the County Council are contemplating a comprehensive revision of their scholarship scheme, which will doubtless produce considerable influence in connection with the London secondary schools, and which, coupled with the requirement of the Act that scholarships cannot be held in public elementary schools, will necessitate an increase in secondary school accommodation in the Metropolis.

* * * * * *

Perhaps it is in that branch of higher education which relates to the training of teachers that the London County Council have recently made the most advance. A scheme has been prepared under which it is hoped to provide, within the next year or two,

four or five additional training colleges. In addition to the one to be located in the Goldsmiths' Institute, where the University of London are intending to organise a college, which will take students from the adjoining counties as well as from London, four other colleges will, it is hoped, be established by the Council themselves in suitable districts. Meanwhile the training classes which had been established on a half-time basis by the late School Board for London have been converted into a training college, which has received recognition from the Board of Education under the new Regulations; and a further development has taken place in connection with the Council's University Day Training College by the organisation of a separate branch which makes provision for two-year students, side by side with the general three-year course, and in connection with the University of London.

* * * * * *

As regards the technical side of education, the opening of the session 1904-5 has been marked by signs of increasing co-operation between the evening schools formerly conducted under the School Board and the polytechnics and technical institutes. The Council have made efforts, by issuing joint advertisements and handbills for the two classes of institutions, to emphasise the fact that they are to be conducted under one comprehensive scheme; and, although it is at present too soon for any marked change to have been produced in the curricula of the various schools, it is hoped that before long a compact and uniform system of evening instruction will be established throughout the county of London.

* * * * * *

The report of the work of the City Guilds Department of Technology, recently issued, is in many respects a highly interesting document. It is a remarkable indication of the success of voluntary effort. In no other country, probably, would a similar organisation have been possible. Detached from the Board of Education, the Department occupies the position of a Government institution, and discharges many of the functions which properly belong to the Board. The position which the Department now holds is recognised by the Government, and the Board of Education have shown their wisdom in availing themselves very fully of the services which the City Guilds, as pioneers of the movement for promoting technical education, were prepared to offer. Between the Central Educational Authority and the Department of Technology a

system of co-operation has been arranged, by which the Department is enabled to act as a voluntary branch or agency of the Board. It would appear from the report that the Institute, through its Technological Department, performs similar offices for the Scotch Education Department and for the Department of Agriculture and Technical Instruction for Ireland; and, as a result, there is greater concentration of effort and a more united action in the arrangements for technical teaching than exists in any other branch of national education.

* * * * * *

The report contains many interesting particulars as to the progress of technical education in all parts of the United Kingdom. During the past session, the efforts of the Department have been largely directed towards raising the standard of qualification of technical teachers. The qualifications of all persons recommended as teachers are submitted to the Department for approval, and those only are registered who produce evidence of having acquired an adequate knowledge of the scientific principles cognate to some trade subject, acquaintance with the practice of the trade and some experience in teaching. All who are actively engaged in the endeavour to improve our system of technical education, particularly in evening classes, will recognise the propriety of the statement in the report: "the occasional appointment by school "authorities of persons as teachers who are not approved by the "Institute, for the reason, very often advanced, that 'no better "teachers can be found,' is to be deprecated, as involving a waste "of public funds, and as depriving students of those opportunities "of sound instruction which they are entitled to expect."

* * * * * *

Some idea of the extent of the operations of the Department may be gathered from the fact that, during the past session, 41,089 students were receiving instruction in registered technological classes, as against 38,638 in the previous year; and that of these 19,041 presented themselves for examination, as compared with 16,973 in 1903. The work of the Department is not restricted to the United Kingdom. From India and the Colonies, 450 candidates came up for examination in a great variety of technical subjects, and the report states that "both in New South Wales and in New Zealand, "the percentage of failures is less than in the Mother country, "although a smaller proportion of the Colonial candidates qualify

" in the Honours Grade." The continued increase in the number of students in attendance at the technical schools maintained or aided by the London County Council is another satisfactory feature to which the report draws attention. The carefully prepared statistical tables and the extracts from the examiners' reports will be studied with interest by the local committees and the managers of schools. The report shows conclusively that the additional duties now thrown upon Local Education Authorities have in no way lessened their concern for the improvement of technical education within their respective areas.

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The multiplicity of examinations, and their tendency to increase rather than diminish, have long been recognised as causing much harm to true educational progress. There is, fortunately, some indication that the question will now be considered from the national point of view. On pp. 518-24 we publish an official account of the issues raised, in the first instance by certain professional bodies, and of the action so far taken thereon by the Board of Education and the Consultative Committee. In a covering note Mr. Morant dissociates the Board from any responsibility in connection with the proposals, but "in view of their capital "importance . . . . in relation to secondary schools the "Board are anxious to obtain an expression of the views of the "universities and of the other bodies interested." Briefly, the proposals would involve the establishment of Local Examination Boards of a representative character to exercise jurisdiction in well-defined areas, with a Central Board, representative of all the Local Boards, to act in a supervisory capacity over the whole scheme. The Board of Education would undertake the important duties of initiation, not only as regards central organisation but also, we conceive, those connected with the more complex problem of local organisation. In a word, if anything is to be done, upon the Board of Education would fall, apparently, the onus of putting the scheme into operation; but in any case it would be a work of much time. It may be added that the proposals of the Consultative Committee appear to have received general approval; the Executive Committee of the National Association for the Promotion of Technical and Secondary Education and the Executive Council of the County Councils Association have not yet considered them in detail, but meetings of these two bodies have been summoned for this purpose. The matter is also under

the consideration of the College of Preceptors, which for over 60 years has exercised a useful influence on secondary education, and the efforts of which should not be overlooked in any comprehensive scheme of examination and inspection.

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These important results of the labours of the Consultative Committee of the Board of Education remind us that we have not yet noticed the modifications made in the constitution of that body since its appointment by the Order in Council of 7th August, 1900.* Sir Wm. Anson, M.P., resigned his seat upon his appointment as Parliamentary Secretary to the Board, and Mr. T. H. Warren, M.A., President of Magdalen College, Oxford, was appointed to fill the vacancy. Quite recently the Board have announced that Mr. Sidney H. Wells, Principal of Battersea Polytechnic, and the Rev. James Went, Head-master of Wyggeston School, Leicester, have been appointed in the places of Professor Henry Armstrong and Dr. Gow, who retired in accordance with the terms of the Order. The Committee is, consequently, now constituted as follows:—The Rt. Hon. Sir Wm. Hart Dyke, Bart., M.P. (Chairman), the Rt. Hon. Arthur H. D. Acland, the Rt. Hon. Henry Hobhouse, M.P., Sir Michael Foster, M.P., Mr. A. C. Humphreys-Owen, M.P., Sir R. C. Jebb, M.P., Mr. Ernest Gray, M.P., Mrs. Eleanor M. Sidgwick, Mrs. Bryant, Miss Manley, the Hon. and Rev. Canon E. Lyttelton, the Very Rev. E. C. Maclure, D.D., Dean of Manchester, the Ven. E. G. Sandford, Archdeacon of Exeter, Professor B. C. A. Windle, M.D., the Rev. D. J. Waller, D.D., Mr. T. H. Warren, Mr. Sidney H. Wells and the Rev. James Went. The Secretary to the Committee is Mr. Horace E. Mann, who should be addressed at St. Stephen's House, Cannon Row, Westminster, S.W. The meetings of the Committee, however, which in the past have been held at South Kensington, are now held at Whitehall. It is indeed difficult to comment upon the *personnel* of the Committee without conveying, perhaps by a slip of language, invidious distinctions. On the other hand, while we are most anxious to avoid such distinctions and to express our high appreciation of the selections made since the formation of the Committee, we feel it right to acknowledge with much gratification the inclusion within the present Committee of Mr. Sidney H. Wells, the Principal of the Battersea Polytechnic. Mr. Wells stands for a type of thought and work not so directly

* See "The Record," July, 1900, p. 277.

recognised hitherto, and he commands that confidence among the various sections of educationalists which, when attached to his personal qualities, can hardly fail to impress the Committee with views of an authoritative character.

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The report of the Board of Education for the year 1903-4 is of particular interest, since it brings to a focus so much information relating to the task of bringing the new Education Acts into effective operation throughout the country. But as it naturally covers much of the ground with which we have dealt in these columns from time to time, there is no need to minutely examine its material here. Certain important references must not, however, be overlooked. The immediate effect of the legislation is found in the facts that "these Acts have for the first time made it possible "for . . . . education . . . . to be dealt with as " . . . . a co-ordinated whole in each area, and . . . . "brought within reasonable distance of solution . . . . " problems which could not be solved until . . . . they were " given careful consideration in each area in close connection with " the other parts of the local educational system." The relations between all those concerned with the government of secondary schools is again made the subject of special comment, and it will be remembered that we dealt with this matter in connection with the Board's Secondary School Regulations in our last number. The position is now described thus: "The difficulty arises partly " from a somewhat utilitarian view of education which the work " hitherto done by some Councils under the Technical Instruction " Acts has tended to confirm. It is also partly due to over-anxiety " of Local Authorities lest they should lose control if Governing " Bodies and head-masters were given too free a hand in the " administration of their schools. It will take no long time for all " to learn . . . . the relative importance of general education " and special instruction, and the value to a school of increasing " the interest by increasing the responsibilities of Governing " Bodies and head-masters."

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A not unimportant departure is announced by the Board in the interests of teachers in secondary schools. As the result of overtures from the French Ministry of Public Instruction, applications by English teachers for appointments in French educational institutions will be dealt with by the Director of

Special Inquiries and Reports. The idea is, more particularly, to create a new type of teacher to conduct conversation classes in French secondary schools in his own language, and thus supplement the teaching of modern foreign languages given by the regular staff. It is hoped that the arrangement may become reciprocal. As evidence of the satisfactory progress of secondary day instruction in this country, it may be stated that the Government grants to the two types of secondary schools and for science and art classes (secondary) showed an increase of £34,000 for the year 1902-3. We are also interested to learn from the report that the Board of Education intend to give their "most careful consideration" to the proposals of the Consultative Committee for a system of school certificates referred to in a previous note, when, of course, they have before them the views of all parties concerned.

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In the report of the Teachers' Registration Council noticed in our last issue it was stated that difficulties had caused the indefinite postponement of the formation of the Supplemental Registers for teachers. The Board of Education have since intimated that for the present no further steps will be taken to establish them. The reasons are that the Consultative Committee, at the instance of the Board, have given very prolonged and earnest consideration to this matter, and, after a conference with the Teachers' Registration Council, a joint sub-committee, including representatives in equal numbers of these two bodies, was appointed to consider proposals for draft regulations for these Supplemental Registers. The report of this sub-committee was recently received and considered, and, as a result, the Consultative Committee, at their last meeting before the recess, resolved to recommend to the Board of Education that the establishment of Supplemental Registers be postponed until the teaching of the subjects proposed for them has been further organised in connection with general education. The Board of Education have accepted this recommendation. The remarks contained in the report of the City Guilds Department of Technology on the qualifications of teachers of technology might be read in this connection.

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The very suggestive paper on "The Training of Teachers and the Local Education Authorities" which was contributed by the Rt. Hon. Henry Hobhouse, M.P., to the Educational Science

Section of the British Association on the 22nd August last, and the discussion thus initiated, deserve the fullest consideration of all those engaged in educational operations. The problem of the training of teachers meets the educationalist on every hand, and it is universally admitted that its solution, though imperative, is beset with many difficulties. Some of these difficulties were enumerated, not only in the paper but also in the discussion to which we have referred; and each speaker did not fail to point a way along which reformers might proceed. The gathering brought to a focus much helpful thought and information. Moreover, there appears to be general agreement as to the main issues to be faced. It was felt that teachers should be trained—and not necessarily in a teacher-training atmosphere only—without regard to the specific branch or branches of the profession to which they might devote their attainments; that it is undesirable, educationally, to inaugurate a system of indenture whereby teachers would be bound to serve the particular Local Education Authorities which trained them—a plan which must be seriously prejudicial both to the free circulation of educational energy and to the interests of the weaker counties and boroughs; and that, while not lessening the proper responsibilities of the Local Education Authorities and of the teaching bodies, it is essential that further financial assistance should be forthcoming from Imperial resources. These are only three of the points which were brought into prominence, exigencies of space precluding us from a more exhaustive treatment of the issues raised. But we hope that we have said enough to induce our readers to consult a full report of the proceedings of this Section of the British Association.

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It is interesting to notice the experiment which is being made particularly during these early periods of the administration of the Education Act, by the appointment of Consultative Committees or Boards, mainly composed of those representative of the best teaching experience of every type of education in counties. Such bodies would naturally act in an advisory capacity only, but this limitation would not necessarily prevent them from exercising a powerful and practical influence upon the acts, and perhaps, at times, the policy of the Local Education Authorities. In the case of Surrey—one of the first counties to form a Consultative Committee of this character, and whose full constitution was given in our last volume (pp. 478-83)—the results are already in evidence. For instance, the Consultative Committee in the county just named

have made suggestions as to (1) the schemes of work and staffing of evening schools, and (2) the necessity for an insurance scheme for secondary school teachers. There seems also no reason why the same method of forming smaller advisory bodies, with a constitution suitable to the nature of the work, should not be adopted, with very useful results, for other and specific matters pertaining to purely local organisation.

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The subject of agricultural education was discussed at a conference held at Gloucester on the 20th October. The Right Hon. Sir John E. Dorington, Bart., M.P. (chairman of the Gloucestershire County Council), presided, and the principal contributors to the discussion included the chairman, Lord Onslow (President of the Board of Agriculture and Fisheries), Lord Monteagle, the Right Hon. Sir William Hart Dyke, Bart., M.P. (chairman of the Agricultural Education Committee), Sir Thomas Acland, Bart., the Right Hon. Henry Hobhouse, M.P., Mr. Robert L. Morant (Permanent Secretary to the Board of Education), Professor Middleton, Professor Robert Wallace, M. Henri Grosjean (Inspector-General of Agriculture in France), Mr. George Lambert, M.P., Mr. Frederick Verney, L.C.C., Mr. F. Dutton, Mr. Martin J. Sutton, Mr. A. D. Hall (Director of the Rothamsted Experiment Station). In looking through the list of those present, the representative character of the gathering is made manifest; while the opinions expressed by the various speakers, although divergent upon certain important points, go to show that educationalists and agriculturists are fast becoming enabled to view the problem before them by a mutually helpful perspective. The extent to which the Agricultural Education Committee have contributed to this result cannot be measured; but it is widely acknowledged that the Committee are entitled to a large share of praise for the progress of recent times.

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Sir Henry Craik's report for the year 1904 on Secondary Education in Scotland should be read studiously on this side of the Tweed. It contains suggestions, based upon many years' practical experience, likely to be of service to those engaged in the organisation and administration of secondary schools. Much is made of the value of inspection, which has had the effect of raising the standard of secondary education in Scotland. The

conferences have proved useful to managers and teachers, as well as to the inspectors and the Local Authorities. The chief duties of the inspectors and the managers are set forth tersely. The former may often find it expedient to indicate defects rather than to report in distinctly condemnatory terms of the work of a school. It is the duty of the latter to study the reports with care, in the light of their own knowledge of local circumstances, to act upon their own judgment in regard to the steps necessary to remedy defects, and to note the recent developments in secondary education in order to keep their school in line with the requirements of the day. While it is the aim to maintain a high standard throughout the schools, it is not the aim to mould the schools to one uniform type. Thus, Local Authorities have freedom to vary the curriculum according to local needs, and the initiative and responsibility of managers is not limited; while, to ensure continuity of judgment, the same inspector visits the same school several times, periodical changes being made. By all these means marked inefficiency in Scottish secondary schools has become of rare occurrence.

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Beyond these means, it is considered essential to the prosperity of secondary schools that local effort of all kinds and the suitable co-operation of all local forces should be encouraged. The development of the schools would be promoted by more differentiation, during the later years, of the science courses for boys and girls respectively. As an alternative for the latter, science teaching bearing upon household affairs and hygiene is suggested. Again, a definite period of residence abroad is advocated for teachers of modern languages, the best results being invariably obtained in the schools where teachers have received training in that way. But amid all the excellent features of the Scottish secondary schools, occasion is found to levy the usual strictures against the premature withdrawal of pupils from school. This is said to be one of the most serious difficulties against which secondary education in Scotland has to contend. The following summary of an elaborate series of statistics given in Sir Henry Craik's report reveals the existing facts in a general form :—

No. of Pupils on the School Rolls at the close of the School Year 1902-3.

	Under	Between							Over
Age.....	12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19
Per Cent.	25½	9	14½	17½	15	9½	5	2½	1½

The latest addition to the number of educational Associations is a combination of teachers of science, art and technology. As the result of negotiations during the last few months, a largely attended meeting of representatives from institutions in all parts of the Metropolis was held at the Birkbeck College, Chancery Lane, E.C., on Saturday, 22nd October. It was decided to form an Association of such teachers, to comprise both the permanent staffs and the evening teachers, but to exclude those engaged in purely secondary work and also the principals of institutions. A temporary Executive Committee was appointed to draft rules and a constitution, and to report to a general meeting to be held in January next. In the official communication issued prior to the meeting the chief aims and objects of the Association were thus set forth:—(1) the advancement of technical education generally; (2) the interchange of ideas regarding methods of technical teaching; (3) the promotion and safeguarding of the professional interests of the teachers concerned; (4) to give prominence to their views before educational authorities and the public; (5) to provide opportunities for their co-operation as a body with other Associations. It ought to be possible for such an Association to so commend itself as to secure a useful influence in educational affairs.

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The following additions to and revisions of the list of the chief educational officials appointed in counties and county boroughs under the Education Act, 1902, published in "The Record," January/March, 1904, have been noted since our last issue:—

BLACKPOOL.....*Secretary*: Mr. F. G. Plant, Education Offices, Market Street.

BRECONSHIRE .....*Clerk to Committee*: Mr. George Tudor, Education Offices, County Hall, Brecon.

BURY .....*Principal of Municipal Technical School and Director of Education*: Mr Robert Wilkinson, B.A

Clerk to Committee: Mr. John Haslam (Town Clerk), Bank Street.

CARDIGANSHIRE.....*Director of Education*: Mr. Jenkin James, M.A., County Offices, Aberystwyth.

DUDLEY.....*Secretary*: Mr. J. M. Wynne, Education Offices.

LONDON .....*Assistant Educational Adviser*: Dr. Frederick Rose, London County Council Education Offices, Victoria Embankment, W.C.

FLINTSHIRE.....*Clerk to Committee*: Mr. F. Llewellyn Jones, County Offices, Mold.

MANCHESTER .....*Assistant Director of Elementary Education*: Mr. T. W. Berry, F.C.S., Education Offices, Deansgate.

MONMOUTHSHIRE ...*Secretary and Legal Adviser*: Mr. C. Dauncey, County Council Offices, Newport (Mon.).

MONTGOMERYSHIRE.*Clerk to Committee*: Mr. Llewellyn Phillips, County Education Offices, Newtown.

NEWPORT (MON.) .....*Clerk to Committee*: Mr. A. A. Newman (Town Clerk).

Clerk to Sub-Committee for Secondary Education: Mr. George W. Moores, Education Offices, Charles Street.

Clerk to Sub-Committee for Elementary Education: Mr. John Hutchins, Education Offices, Charles Street.

NORTHAMPTONSHIRE*Secretary*: Mr. J. L. Holland, B.A., County Hall, Northampton.

PEMBROKESHIRE .....*Director and Inspector of Education*: Mr. H. E. H. James, County Education Offices, Haverfordwest.

RUTLAND .....*Secretary*: Mr. E. W. Axtell-Gardner, B.A., County Council Offices, Oakham.

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Extreme pressure upon our space precludes us from now dealing with—(1) the last annual report of the late Technical Education Board of the London County Council, which gives valuable comparative analyses of the position of secondary and technical education in the Metropolis in 1893 and at the present time; (2) a report on secondary education in Liverpool, including the training of teachers for public elementary schools, by Professor M. E. Sadler; (3) the results of local inquiries into the condition of secondary education in an additional number of administrative counties (*e.g.*, Cheshire, Devon, Leicestershire, East Suffolk, Worcestershire); and (4) University of London—annual report of the Board to promote the Extension of University Teaching, 1903-4, including (*a*) local lectures, (*b*) inspection of schools, (*c*) holiday courses.

GIRLS' ENDOWED SCHOOL, SKIPTON (SCHOOL BUILDINGS AND SCHOOL HOUSE). (*See page* 416.)

II.—LOCAL INQUIRIES RESPECTING SECONDARY SCHOOLS IN ENGLISH COUNTIES.

(C) THE WEST RIDING OF YORKSHIRE.*

(Continued from "The Record," January/March, 1904.)

(1) PRELIMINARY REMARKS.

As a result of the deliberations of their Higher Education Sub-Committee, the Education Committee of the West Riding County Council have issued a very valuable and comprehensive report upon the existing conditions respecting secondary schools and pupil-teachers' centres in the administrative county. It presents in great detail the position in individual districts as well as throughout the whole county, and deals very clearly with many problems of organisation that will be found, in a large degree, to be common to all areas. The report is, therefore, not only suggestive as to the general methods of procedure but it indicates also an excellent means of focussing the various questions that must almost necessarily come before all Local Education Authorities contemplating action under Part II. of the Education Act.

It is impossible to adequately consider here all the points raised in the report, which occupies 150 foolscap pages and contains suitable diagrams indicating the position of local schools and centres. Reference can, at the most, be made to the main facts of general interest deducible from the elaborate statistics, and this is done in the order followed in the report, which it may be stated is divided into two sections, the first section relating to secondary schools, while the second section is devoted to pupil-teacher centres. The facts that the training of teachers is now made a definite duty under Part II. of the Education Act and that such training is to be partially carried on in secondary schools make it imperative to take stock simultaneously of the character and scope of the instruction in both the schools and the centres. The chief points

* West Riding County Council: Education Committee (Higher Education Sub-Committee):—Report on Secondary Schools and Pupil Teacher-Centres) (existing conditions) with Introductory Notes. (Education Department, County Hall, Wakefield, May, 1904.)

in the present position regarding the training of pupil-teachers in the West Riding are, therefore, added to those respecting the secondary schools.

The report is prefaced by a valuable Introductory Note by the Rt. Hon. Arthur H. D. Acland, Chairman of the Sub-Committee responsible for the report. This Note is reproduced here; it describes the scope of the report and contains also authoritative suggestions upon matters relating to the internal and external organisation of schools, affecting not only the Local Authorities but also the Governing Bodies and others concerned with the instruction of the pupils. Of these, particular attention may here be drawn to his remarks upon—the suitability of the schools to the localities and to the pupils and of the buildings for the instruction; the location of schools, especially in relation to other schools, old and new; the reform of teachers' salaries, as an initial step towards the greater efficiency of the teachers; the radical revision of examination arrangements, and, to some extent, of the curricula of schools aided by Government grants; and the all-important question of finance, including the provision of the initial cost and the apportionment of the maintenance funds of schools.

A few illustrations, typical of the best secondary school buildings in the county, are given on pp. 400, 416, 427, 428, 437, 438, by kind permission of the school authorities.

(2) MR. ACLAND'S INTRODUCTORY NOTE.

The Scope of the Report.

The imperfections of the following Report will be obvious, but the moment when the Act of 1902 is being put into force in a large, scattered and unorganised district like the West Riding, having a population of nearly one and a-half millions for Part II. of the Act, as regards education other than elementary, and a population of one million for elementary education, is not favourable for work of this kind. It is thought better, however, to put the Report out at once as the necessity for further "supplying and aiding the supply" of secondary education in the district is extremely pressing, and the account which it gives of the state of things in the West Riding must be of assistance to those who have to undertake the task of making good some of the great deficiencies which exist. The object of the principal report is to show the educational conditions of the West Riding at the end of the year 1902 so far as the secondary education of boys and girls in day schools between the elementary schools and the universities is concerned. It must be

noted that since that date the grants made by the Couuty Anthority to many of the secondary schools have been considerably increased. The area treated is primarily the administrative area of the county, namely, the geographical county with the county boroughs excluded. It must not, of course, be forgotten that within this area the non-county boroughs and Urban District Councils have powers of their own to the extent of an expenditure not exceeding a penny rate as regards secondary or higher education, and many of them have made good use of these powers. But in a general view of this sort it is essential to deal with the area as a whole, and it is becoming continually clearer that without aid raised from the central County Authority, secondary education in the non-county boroughs and District Council areas can make little progress. There is no intention of ignoring what has been done under the Technical Instruction Act to develop many kinds of education in the county, most of which are to be treated in future as of the secondary type. But the Act of 1902 makes it possible (with certain limitations, including most inadequate arrangements as regards the supply of funds) to deal with secondary day school instruction as a whole for the first time without regard to any particular type of teaching. Hence the necessity for this report.

It has been found desirable to add to the principal Report a supplementary report concerning the education and training of those who are to become teachers in the elementary schools of the West Riding. Regulations recently issued concerning the instruction in future of "intending pupil-teachers" and pupil-teachers have made it clear that very great improvement may be brought about in the education given to many of our future elementary teachers if they are taught in secondary schools. This matter is so important that it has been necessary to delay the Report in order to deal with it, as without the main facts before them in this connection no Committee could form a complete judgment as to the amount of new supply of secondary education needed. What proportion of "intending pupil-teachers" or pupil-teachers should be admitted to secondary schools, and to what type of schools, is a matter for future consideration. But a presentation of the existing facts so far as they can be ascertained is essential.

The first or principal Report deals for the most part with the 35 secondary day schools within the administrative area which were recently inspected by the Board of Education and are aided from the county funds: some of the statistics refer to the county boroughs, and there are a few figures also available as regards private schools.

The Report deals in the first instance with the supply of schools, teachers and pupils, and in the next place with the supply of funds. An account of the administration of the schools is then given, and some facts are added about the curriculum in different schools and about scholarships, inspection and examination.

The Supply of Pupils.

With regard to the supply of pupils who should be in secondary schools, it may be said broadly that a really good school will attract pupils in almost any district. The supply of pupils depends largely upon the goodness of the school. The goodness of the school depends largely upon its being a school suitable to its surroundings, with a first-rate staff of well-paid teachers, with excellent buildings and apparatus, and with a tone and spirit which develop the interest and zeal of the pupils and their attachment to their schools. Of these conditions, a large part depends upon funds only, but a very important part depends upon the men and women in whose hands the guidance and government of the school is placed, and this is not solely a question of funds. And it should be added that much also depends upon the nature of the encouragement given to the schools by the Governors, the County Authority and the State, for even a large amount of funds cannot alone produce success if given under conditions which are restrictive of that initiative and freedom under which alone a school can be healthily developed. The interest of the parents in the schools might be, and it is to be hoped will be, much increased. The heads also of mercantile and industrial firms might do much to aid the schools by insisting on evidence of a thoroughly sound general education in the case of many of those who are employed in offices or works.

The question of supply must be treated first.

It is sufficiently well known that in England, as a whole, secondary education in day schools is not yet efficiently supplied, nor is the supply organised in any effective way.

The Reports of the Royal Commissions, the speeches and articles of experts have reiterated the facts till we are tired of them. But, broadly speaking, though much advance in individual schools has been made, the condition of things remains very much the same in many districts as it was a generation ago. There is no adequate supply of efficient secondary education of a public character for the parents who need it. There is no adequate organisation or effective co-ordination of the schools which are in existence.

The West Riding will bear ample testimony to this. There is considerable deficiency in accommodation, great deficiency in attendance, extreme deficiency in properly paid and well-qualified teachers.

The Attendance of Pupils.

At the present time about 4,300 pupils (2,800 boys, 1,500 girls) resident in the West Riding are attending public secondary schools in the Riding or in the county boroughs. If there were an attendance of five per 1,000, which is the very least that there should be, within a very few years in any large industrial districts there would be 7,000, or more than half as many again. If to this number be added, say about 1,000 of the "intending pupil-teachers" who will probably have to be trained in the Riding, this would give the number of 8,000 who should be in attendance, or nearly twice as many as at present. After making allowance for filling up existing accommodation which is not filled up, and which is within convenient reach of parents, there would probably remain a need for new schools to accommodate at least 2,500 pupils, of whom the great majority would be girls. There are, at present, only 1,000 girls resident in the West Riding attending public schools within the Riding, and only 450 girls attending public schools in the county boroughs. If ten new girls' schools were placed in the proper places, where the need is greatest, it is probable that in a very short time there would be a very largely increased attendance of girls for whom at present no adequate provision is made.*

The Cost of Schools.

The question at once arises—How can these or other new schools be built where there are no grants for building and no available endowments? There is very little prospect that any large sums will be raised by voluntary subscriptions, especially if the new rate for elementary education should be something like sevenpence or eightpence in the £. The only possible method appears to be a special rate levied on the particular district concerned.

Some idea of the cost of a new secondary school for a population of say 25,000 may be arrived at as follows. The cost of a school, say a dual school for boys and girls, at the rate of six per 1,000 of the population at about £60 a head, for site, building, furniture, etc., would be £9,000 for 150 children. This would represent an annual cost for interest and repayment of principal of, say, £450 a

* In Wales, under the Welsh Intermediate Education Act, of rather more than 8,000 pupils, nearly half are girls.

year, or at least a penny rate in many districts, until the debt on the buildings was wiped out. After the building had been provided rent free it would be difficult to carry on the school for less than £1,800 a year with a good staff and including all the necessary expenditure on cleaning, light, fuel, repairs, administration and miscellaneous matters. Against this may be set an income in fees either from parents or scholarship funds, say, of £6 per head or £900, a grant from the Government of £2 10s. per head if it was a Division B school (which would be the most appropriate type of school) or £375, and a grant from the County Council at the rate of £2 per scholar or £300, or a total income of £1,575. With such a calculation both ends do not meet, and yet there will have been a local expenditure of a penny rate for a building, aid from the County Council in scholarships, and annual grant, which may be equal to nearly another penny rate, and probably an expenditure on "intending pupil-teachers" and pupil-teachers in the school which will take up a considerable part of a third penny rate.

This places far too great a burden on a locality which may be already paying a very heavy rate for elementary education. There is only one effective way in which relief can be given, and that is by an increase of the grants from the State.

Such are some of the financial difficulties which stand in the way of our carrying out, even on the most simple and reasonable lines, such a supply of good secondary education in day schools within easy reach of the parents as most other civilised nations have long ago provided for their own people.

School Accommodation.

No attempt is here made to indicate the exact places in which new schools are required. The Report indicates very clearly by means of maps and statistics the areas which are in need of new schools. The exact position of the schools will have to be carefully considered by the central County Authority in conference with the Local Authorities and others locally interested in the question.

And side by side with the question of the provision of new schools comes the question of supply in existing schools. We must assume that the new schools will be in every respect what Authorities, zealous to have the best, would wish them to be, at any rate as regards buildings, apparatus and surroundings. But in respect of these matters there is in many of the existing schools much to be done, and there are not adequate funds available for the purpose. So long as we find, as at present, that nearly half the pupils leave the secondary school in the West Riding under the age of 15, and that more than a third of them stay for less

than two years at the schools, much of our so-called secondary education is ineffective and inadequate. The accommodation may exist, but until the schools themselves are in many cases made much more attractive and efficient than they are, we cannot expect that the attendance will largely increase.

The actual conditions under which the teaching is given, with regard to buildings, surroundings and equipment, are of the highest importance in the not too bright or healthy towns of the West Riding. At present there are far too many buildings in use of a standard which would not be allowed in new buildings, and quite unsuitable for secondary school purposes. Much has still to be done to improve lighting, heating, ventilation and decoration. Good playgrounds, gymnasiums, workshops, convenient playing fields and swimming baths are still often regarded as luxuries rather than as necessities. Apparatus of every sort, except for the teaching of science, and, in particular, good and available school libraries are almost wholly wanting.

The Teaching Staff.

We may pass from the subject of buildings and apparatus and the surroundings of the school, and we come at once to the large and fundamentally important form of expenditure which is made in payment of the staff. This is a matter in which all the schools, both new and old alike, except perhaps one or two highly endowed schools, will be concerned. At the present moment in existing schools aided by the Authority only 35 per cent. of the assistant-masters possess university degrees, and the average salary of the assistant-teachers is £111 in boys' schools and £85 in girls' schools. Over one-third of the head-teachers have total emoluments of less than £250 a year. The qualifications of many of the teachers are extremely low.

It is obvious that under such circumstances the quality and character of the teaching must be very far below what they ought to be.

In schools in large industrial centres the influence of teachers of the highest possible education and training is of special importance, but it cannot be expected that the low salaries now offered will attract men and women with the power and ability necessary to make themselves centres of the best educational influences, and such salaries will not tempt teachers to postpone beyond the earliest possible moment the time at which they begin to earn them. Many of the teachers, therefore, have had no chance, and can have no chance under present conditions, of learning or seeing the best methods of instruction which the accumulated experience of good teachers is gradually making available for those who have leisure

and opportunity. This condition of things cannot be changed by an alteration of salaries alone. We ought, however, to aim at arrangements under which the ordinary initial salaries of efficient assistant-teachers should be at least £120 in the case of women, and at least £150 in the case of men. Salaries as low as these ought to be accompanied by arrangements for a superannuation allowance as is the case with elementary teachers. In the case of teachers of special skill in certain subjects, or of efficient teachers of some years' service, the salaries would of course be very much higher. There is nothing over generous about such proposals, but they are much in advance of what can be done at present. For here again lack of funds is the great obstacle.

Instead of a Government Grant which roughly averages say £4 per scholar, if the two types of school A and B are taken together, we ought to have a grant which does not average less than £8 per scholar. It is absurd to suppose that our local supply of secondary education can be effectively improved as long as the State grants little more than £200,000 a year to our secondary day schools for a population of 34 millions.

There are other matters, in which the question of funds is not so much involved but which closely concern the efficiency of the schools, to which a few words must be given.

Examinations.

At present nearly all our secondary schools suffer greatly from a multiplicity of examinations which are pressed upon them either by the parents or by the Authorities or in other ways. What is needed as a remedy is some uniform and simple "leaving examination," as it is popularly called, which shall be available as a substitute for the various entrance examinations to the professions or to places of higher education which now prevail. It is to be hoped that the universities and other examining bodies may combine to accept some scheme which will give a great relief to the schools and the teachers in this respect. Much more simplicity also in the tests applied to our schools is very desirable, for many of the so-called successes of special pupils are by no means always a real testimony to the thoroughness or efficiency of a school taken as a whole.

Alike in the examinations which are the test of the pupils leaving the secondary school, and in those which by scholarships or otherwise bring pupils into the school, it is much to be wished that the knowledge and opinion of the teacher about the pupils should count for something. There are difficulties in this no doubt, but the present tests in which paper work plays so large a part are very far from being wholly satisfactory.

The Curricula of Schools.

As regards the curriculum of the schools, what is most to be regretted at present is that so many authorities find themselves, for financial reasons, compelled to enter their schools under Division A or Division B in order to obtain a Government grant, apart from the question of whether this is really desirable in the interests of the school. They are often also pressed to become Division A schools simply owing to the necessity for getting more money in cases where Division B is educationally the best type of school, but where, according to present arrangements, the money grant is the smallest. It may be hoped that it will not be long before the Board of Education will give up these restrictions which belong to the period of the abolished Science and Art Department, and make their grants for the efficiency of the school as a whole, apart from the teaching of particular subjects, provided the curriculum be suitable to the school and the pupil concerned.

Such a change in conditions would make it possible to consider the whole question of curriculum in a fresh light. It is generally felt that in all our schools, elementary as well as secondary, there is a tendency towards too much instruction in facts to the comparative exclusion of training in habits of mind and in capacity for appreciation. It is to be feared that much of the instruction in special subjects is at present wasted owing to the want of soundness of the foundation, and it may well be that in the early years of a secondary school course some subjects now taught should be omitted and attention concentrated on various forms of training in the use of the mother tongue. The reports of Government Inspectors who, under the provisions of the Act of 1899, have been called upon to inspect for the county the schools which it aids, distinctly point in the direction of a change of this sort. It should be here stated that these reports on the secondary schools printed for the confidential use of the County Authority and the Governors of the schools, though, in a few cases, open to criticism in minor points, have been able and impartial and of the greatest value to the West Riding Education Committee.

Future Work.

There remains a heavy task in the future for the County Authority to perform before secondary education can be what it ought to be in the West Riding. This task can only be achieved by constant co-operation with the local bodies who are interested in the matter. Nothing but the most friendly and united action at every point can bring about what is required. This is just as true with regard to existing schools as with regard to a new supply of schools. As far as possible all reasonable

experiments in educational work will no doubt be encouraged, and there will be both latitude and elasticity in the arrangements which are made. There seems to be ample ground for the belief that by friendly counsel and conference the County Authority can be of real service to the schools and the County Governing Bodies. It is much to be hoped that when the first difficulties have been faced and overcome, which cannot be done without a further supply of public funds, there will be time to think more about the pupils, the actual boys and girls themselves, and less about machinery and apparatus and administration. When that time comes, if frequent conferences between the teachers, the Local Authorities and the County Authority are held, ample opportunities will be given for making that real and effective progress which in this particular branch of our national education has long been hoped for but which has been long delayed.

(3) REPORT ON SECONDARY SCHOOLS.

The Supply of Schools.

POPULATION.—In any consideration of this question, the position held in the geographical county by the county boroughs cannot be ignored. It should, therefore, be stated at the outset that nearly one-half of the total population (2,761,321) of the West Riding is to be found in the six county boroughs. Again, the 14 non-county boroughs, with their separate powers under Part II. of the Act, account for a population of over 360,000 out of that of the administrative area of 1,389,184.

NUMBER OF SCHOOLS.—The 19 *non-local* schools in the county and the county boroughs need not be included in the number of schools, as they do not materially affect the question of supply. There are 111 local secondary schools in the administrative area, but of these as many as 72 are private schools, and of the 38 public schools only eight are separate schools for girls. In the county boroughs the relative proportion of public and private schools is reversed, there being 27 of the former (calculating the higher grade schools for boys and girls as one school) and 20 of the latter: the proportion of separate public schools for girls is also better.

ACCOMMODATION.—In estimating the supply of schools and their available accommodation for the purpose of comparison with the population, the county has been taken (*a*) as a whole, (*b*) in its administrative area simply, (*c*) in its county boroughs and (*d*) in separate sections and districts. The proportion of accommodation to each 1,000 of the population must be estimated side by side with

WHEELWRIGHT GRAMMAR SCHOOL, DEWSBURY (VIEW FROM HALIFAX ROAD). (*See page* 418.)

WHEELWRIGHT GRAMMAR SCHOOL, DEWSBURY (BOYS' CENTRAL HALL). (*See page* 418.)

WHEELWRIGHT GRAMMAR SCHOOL, DEWSBURY (PORTION OF CHEMICAL LABORATORY). (*See page* 418.)

the facilities for communication in any one given district. It should be remembered that at present the existing accommodation is far less inadequate in certain districts than the actual attendance.

For the population of the whole county there are 86 secondary public schools with accommodation for 12,514 pupils, and 99 secondary private schools with accommodation for 5,170 pupils, making a total of 185 schools with accommodation for 17,684 pupils (including in the *non-local* schools the accommodation for day pupils only). For the population in the administrative area there are 48 public secondary schools with accommodation for 4,890 pupils, and 79 private secondary schools with accommodation for 3,490 pupils, making a total of 127 schools with accommodation for 8,380. For the population in the county boroughs there are 38 public secondary schools with accommodation for 7,624 pupils, and 20 private schools with accommodation for 1,680 pupils, making a total of 58 schools with accommodation for 9,304 pupils. It will, of course, be noted that in each case a great disparity exists in the amount of accommodation provided by the private as compared with the public schools, though the numbers of the former are larger than those of the latter. The approximate proportion of accommodation per 1,000 of the population is very similar in each case, the actual figures being—for the whole county, 6·4; for the administrative county, 6; for the county boroughs, 6·7.

In the separate (or chiefly smaller than the county borough) districts it is found that, to a large extent, the available accommodation is unsuitably placed. For instance, in the most thinly-populated districts the average works out at 19·57 per 1,000, while, on the other hand, in the most thickly-populated districts, where, of course, the largest accommodation is needed, an average of only 6·19 per 1,000 is shown.

ATTENDANCE OF PUPILS.—The statistics in regard to the existing attendance at schools reveal some interesting and important facts, and these are given, firstly, for *all* secondary schools, and, secondly, for public schools only. When compared with the *available* accommodation, the number of pupils in attendance is very much below what it should be. Taking the proportions of the attendance to the population only, they are approximately per 1,000 as follows:—in the whole county—(*a*) for *all* schools, 4·4, (*b*) for *public* schools only, 3·3; in the administrative county—(*a*) for *all* schools, 3·7, (*b*) for *public* schools only, 2·2; in the county boroughs—(*a*) for *all* schools, 5·1, (*b*) for *public* schools only, 4·4. The proportionate attendance in the separate districts cannot be given as a whole: it is subject to extreme variety, from 11·7 to 0·4. A close comparison of the

attendance with the accommodation in *all* schools shows the unsatisfactory condition of affairs, the former falling short of the latter by (per 1,000)—2 in the whole county; 2·3 in the administrative county; and 1·6 in the county boroughs.

If the number of pupils in attendance at private schools of a secondary character is omitted, the real condition of affairs as far as the public secondary schools are concerned will be more apparent. Without in any way wishing to exclude the private schools from the consideration due to them, it must be remembered that but few would really be available as affording the kind of supply required. In not a few cases the nature of the buildings, the uncertainty as to the permanence of the school on the death or retirement of the head-master or head-mistress, and the risk as to what may happen on the sale of goodwill, diminish to a great extent their power of being permanently available as a substitute for a public or municipal supply. There may be cases where a transfer to a Local Authority can be usefully arranged, and there will always be some districts in which private schools will satisfy a definite demand on the part of some parents.

If the *public* schools only be taken, which is really the most suitable method of survey under existing conditions, the attendance is shown to fall short of the accommodation by—1·2 per 1,000 in the whole country; 1·3 in the administrative county; and 1·1 in the county boroughs.

The following table serves to indicate the position of the West Riding in the matter of attendance at secondary schools, as compared with other areas, though the figures do not appear in all cases to include private schools:—

Name of District.	Population.	Number of Pupils in attendance.			Proportion per 1,000.
		Boys.	Girls.	Total.	
Massachusetts	3,416,892	—	—	44,680	13·07
Minnesota	1,751,394	—	—	12,436	7·1
Rhine Province.....	5,759,798	31,935	7,692	39,627	6·88
Westphalia.....	3,187,777	14,450	3,591	18,041	5·66
Principality of Wales ..	1,720,600	4,308	4,014	8,322	4·83
Surrey	653,549	1,718	791	2,509	3·83
Cambridgeshire.....	184,759	392	260	652	3·53
Yorks. W.R.	2,761,331	5,553	3,614	9,167	3·3
Staffordshire	1,236,919	2,259	1,558	3,817	3·08
Devon	662,196	1,184	764	1,948	2·94
Lancashire	4,198,136	7,257	3,833	11,090	2·64
Wiltshire	271,394	472	202	674	2·48
Yorks. N.R.	377,338	717	191	908	2·40
Durham	830,651	1,189	599	1,788	2·15
Kent	961,139	1,095	807	1,902	1·98

ANALYSIS OF SUPPLY.—The basis taken for the grading of schools is that adopted by the Secondary Education Commissioners in 1895—for first grade schools, up to 18 or 19 years; for second grade, 17 or 18 years; and for third grade, 15 or 16 years. Thus, it is doubtful if more than a single aided school in the administrative county could fairly be called a first grade school. By taking the same basis for second and third grade schools, at least eight boys' schools and two girls' schools must be termed third grade. But grading in this manner by leaving age is held to be unsatisfactory. Other methods, possibly satisfactory by themselves, are suggested, such as the length of school life, the curriculum and the future careers of pupils. Full particulars upon each of these points, and relating to all the 35 public secondary schools in the county, are given in the report in a tabular form. The schools are also considered upon the bases of recognition adopted by the Board of Education, *i.e.*, under the Regulations for Secondary Schools and for the purpose of the registration of teachers.

It is also pointed out, very properly, that the supply of schools or the accommodation in them is affected, more or less, by practical evidences of local interest, as in the keenness of competition in the various districts for county minor and major scholarships, which, in its turn, is influenced by extraneous circumstances. Upon this matter, a comparative table in the report shows that considerably over one-third of the pupils in attendance in aided secondary schools in the administrative county compete for these scholarships. This takes no account of the competitions held for a considerable number of *local* scholarships and exhibitions. Another indication of local interest is seen in the number of fee-paying pupils in proportion to the population, willingness to pay a fairly high fee being in evidence in many districts.

The leaving age in elementary schools has even a more important effect upon the supply. It is estimated that about 60 per cent. of the pupils in the 35 aided secondary schools have been previously educated in elementary schools. The average leaving age for entrance to the secondary schools was 11·4 years, varying very slightly in different districts. This average is, generally speaking, fair, and cannot be said to affect disparagingly the uniformity of standard in the lower forms of a secondary school where rather the pupils drawn from other sources cause difficulty of classification or grouping. The eligible age for county minor scholarships at secondary schools is at present under 13 years, and in proportion as the competition for them grows keener the greater is the tendency for the average age of scholars to increase. The natural line of division between elementary and secondary education in point of

age, paying due regard to all local conditions, would be over ten and under eleven, and it is where pressure is introduced to retain pupils in an elementary school to a much older age that considerable harm arises.

Finally, the means of communication to and from the schools materially operate upon the supply. A five-mile radius is considered sufficient for a secondary day school in a district where such means are good. It would seem, from a tabular statement in the report, that there are cases in the West Riding where, though the means of communication are adequate, the number of pupils attending from outside this radius is very small, and that, where communication is not good, many pupils attend from outside.

DEFICIENCY OF SUPPLY.—This section forms the real crux of the report, for it shows what work must be done in supplying public secondary school accommodation in the West Riding. The existing supply is very unevenly distributed throughout the administrative county. Certain districts, not the most populous, are wholly without provision for both boys and girls; while by far the greater number of districts (*e.g.*, 14 out of 15 selected) do not afford any facilities for girls. In three out of the six county boroughs the supply is moderately fair, in proportion to the population. Generally, the mining and manufacturing portions of the area are fairly supplied with boys' schools. In the north and north-west of the Riding, and again in the neighbourhood of Goole and Selby, secondary schools for boys are wanting. In the matter of secondary schools for girls the centre and west centre of the area is fairly well supplied. Beyond this there is a great deficiency. The deficiency of accommodation largely corresponds, of course, to the deficiency of schools. The deficiency in the attendance is very great. Schools exist in many districts with a fair accommodation, at which the attendance is wholly inadequate, and this is a very serious hindrance to the efficiency of schools. In the majority of schools in the West Riding the numbers fall below 100—out of the 35 schools of which particulars have been taken, only three contain more than 150 pupils and nine contain less than 50—and this makes it almost impossible for the financial position of the schools, in the absence of a very considerable endowment, to be secured.

The deficiency of supply is, then, not so much a matter of lack of schools or accommodation but of the absolute inadequacy of attendance and consequent inefficiency. How to raise very considerably the attendance in existing schools is of quite as much importance as the provision of additional accommodation.

As regards curricula, there is no hesitation shown in tracing the undue proportion of time devoted to science and mathematics in schools to the influence of Government grants. Speaking generally, the curricula now adopted in the schools have not been determined in reference to the particular needs of the localities, but rather with a view of securing the highest possible grant on each pupil. It would thus seem that a truly educational aim has seldom been the guiding motive in the preparation of a curriculum, and that the proportion of time which should relatively be allotted to specific subjects has not seriously been considered.

The Supply of Teachers.

The teachers' question is considered from such points of view as their qualifications, training, age, length of tenure of office, salaries, amount of work, methods of appointment and dismissal, etc., and is dealt with separately in regard to head and assistant-teachers, and visiting and student teachers. A selection only of the most important facts can be made here.

So far as head-teachers are concerned, it is the experience of Governors and other Bodies who are entrusted with their selection that the supply of suitable candidates is more than sufficient for the necessarily limited number of posts. The head-masters of 25 of the 29 boys' schools possess university degrees, and four hold degrees in both science and art. In all cases previous experience has been gained in other schools and averages a period of ten years. Three of the six head-mistresses possess degrees or their equivalent; in five cases previous experience, averaging six years, has been gained in other schools. The head-masters have held their appointments, on an average, for 13 years, and the head-mistresses for ten years. In comparison with other counties, the salaries paid to head-teachers of boys' schools reach a fair average, but there is great deficiency in the salaries paid to those of girls' schools. In most cases the salaries are fixed, with capitation grants. For head-masters the total salary is found to be on an average £292. In 16 cases, over half of the whole number, it is under £250 and in only seven cases is it over £400. If the value of house and boarders is added to this, an average total emolument of £405 is obtained. For head-mistresses the average total emoluments, reckoning house and boarders, may be estimated at £288; in four cases this total lies between £190 and £230.

The supply of assistant-teachers with suitable qualifications is very far from adequate, more particularly in the case of the boys' schools. It is increasingly difficult to obtain capable men, and no remedy to this serious condition of affairs can be expected until

a very considerable improvement takes place in the rate of salaries, the average of which is very low, in the facility for training and in the chance of promotion. A very small proportion of assistant-teachers are eligible for head-teacherships, and there are few schools in which any member of the staff takes definite rank as second master or mistress. On the one hand, only about 35 per cent. of the masters possess the degree of a university, and, on the other hand, twelve per cent. are quite unqualified. Of the 38 mistresses, twelve either possess or are qualified to receive a university degree, and five are quite unqualified. Only 25 of the 117 masters have been through any course of professional training, while eleven of the mistresses have done so. The average salary of assistant-masters is £111, calculating £40 as an equivalent to board and lodging, and this salary is £24 lower than the Welsh average. For assistant-mistresses, the average falls to £85.

Visiting teachers to the number of 69 are employed by 30 of the 35 aided schools, and are either wholly responsible for the instruction in special (art, commercial or domestic) subjects, or take charge of the more advanced work; they nearly all possess full qualifications for their respective subjects.

An account is given of the special training courses for teachers organised by the County Council since 1889. As to these, it is stated that with some exceptions there has not been any pronounced enthusiasm by teachers to benefit by them for the sake only of improving their own methods of teaching certain subjects, but use has been made of them rather with the idea of obtaining additional qualifications to take work extraneous to the actual work of the school to which they are attached. The demand for qualifications is so great that there is no reason to be surprised at this.

The Supply of Pupils.

It has already been shown on pp. 429-30 how inadequate is the attendance in the public secondary schools in the West Riding. Taking the 35 aided schools with their 3,097 pupils, the extremely low proportion of about two per 1,000 of the population is arrived at, or, if the county pupils (1,287) attending schools in the county boroughs are included, the figure is only slightly over three per 1,000.

Information is given as to the age of pupils in the schools, their leaving age, their period of stay at school, the occupations of parents, the previous places of education, the proportion of the pupils who receive free education, and their subsequent education and career. A few of the most important facts must suffice here.

The returns as to ages show that the majority of pupils fall between the ages of twelve and 15, in fact, 58 per cent., and that very few remain over 17 and 18, which statement is corroborated by the leaving age of pupils.

To ascertain the duration of school life, the summer term of 1902 was taken. There were then 636 pupils leaving. Of boys, 35 per cent. had a secondary school life of over three years and only 21 per cent. over four years; of girls, about 41 per cent. had a school life of over three years and more than 24 per cent. over four years. The average school life is found to be for boys 2·93 years, and for girls 3·14 years. As at most of the schools the course of instruction is planned to extend over at least four years, the benefit of a secondary education is very much depreciated by the withdrawal of pupils after very short periods.

In connection with the statistics as to the occupations of parents, one point of some interest and value is that which makes clear the class of parents inclined to keep their children longest at school; and it is significant that elementary schoolmasters appear to be the lowest in the scale. The percentages of pupils in the *highest third* of the schools only (*i.e.*, those pupils whose ages range from about 16 to 18 years) are returned in order of merit as follow: merchants, bankers, manufacturers, etc., 21·28; commercial managers, travellers, clerks, 19·64; professional and independent, 18·67; artisans, labourers, 16·50; retail traders, 14·22; farmers, 5·14; elementary schoolmasters, 4·55.

From the public elementary (including the higher grade) schools come over 68 per cent. of secondary school pupils, while a supply of nearly 25 per cent. may be attributed to private schools or tuition: these figures have rightly no reference to pupils in preparatory departments of secondary schools. As regards the subsequent education and career of pupils, the available figures indicate that the bulk (68 per cent.) go to take up business and industrial occupations.

The Supply of Funds.

The financial administration of schools is dealt with in great detail in respect of each aided school. The different points of consideration include endowments, Government and County Council grants, rates, fees and voluntary assistance. The general comments upon this question deserve special attention.

Broadly speaking, it may be said that in places where there is no endowment of any importance, and where it is not found possible to charge more than a £5 or £6 fee, it is impossible to carry on a

secondary school effectively without a larger Government grant than is at present obtainable. To maintain (and sometimes to provide) a school and grant it £2 a head out of the rates is as much as any county or district can be expected to do. Add to this a £5 fee, which in many industrial districts is as much as can be expected from the parent, and there remains a balance of £8, which ought to be found by the Government to make up the amount of £15 per scholar, which is the minimum cost of the most simple type of efficient secondary school. Schools with large endowments or high fees, whilst necessarily obtaining similar Government grants, should be utilised for those special purposes and special types of education which are very important but which cost much more than £15 a head. Such schools will always be of the highest value in a county, and it would be a great mistake to keep all schools down to the low level of £15 a head as the cost of the education provided.

A few of the chief particulars of the financial condition of West Riding schools may here be given. The nett endowment available for educational purposes in the county (including county boroughs) reaches nearly £15,000, *i.e.*, for 51 schools, the nett endowment per pupil for the 35 aided county schools being £2·79. The maximum Government grant per pupil earned by any school is £5·64, a sum considerably below that deemed necessary for efficient maintenance.

Some useful remarks are made upon the question of fees, to which a large tabular summary is devoted.

In order to appreciate the adequacy of the fee charged in any school, it is necessary to determine some standard of fee which should reasonably be charged when consideration has been taken of the educational aim of the school, its situation and its availability. Three types of school have been taken with fees of £10, £7 and £4 respectively, for tuition alone. The average of these three would be £7. The raising or lowering of such an average would depend largely on how far the fee had to supplement a poor endowment, and on how far such a fee accorded with the ideas and means of the people whose interests the school especially served. In the West Riding there is an extraordinary difference in the fees charged by schools in similar districts apparently conducted with similar aims and serving similar interests. A fee above the average is found to be readily paid in schools where a fee below the average might be expected, and fees much below the average still continue in schools where, in the absence of other sources of income, the standard of aim demands a much higher fee. This want of uniformity is apt to produce unfair competition and

THE GRAMMAR SCHOOL, WAKEFIELD (FRONT VIEW). (*See page* 418.)

THE GRAMMAR SCHOOL, WAKEFIELD (ASSEMBLY HALL). *See page* 418.)

to cripple the efficiency of the school. The average fee per pupil in the aided schools is about £5·10: where extra fees are charged for special subjects the effect is to reduce the number of pupils studying those subjects.

Other Considerations.

ADMINISTRATION OF SCHOOLS.—A difficulty that would be met with in any reorganisation of existing schools is here noticed, *i.e.*, the control exercised over the Trustees or Governing Bodies of endowed schools at almost every stage of their work by the Central Authority: if any alterations are to be made in details of internal administration, or in control or management, elaborate legal procedure is involved. The constitution of the Governing Bodies of aided schools is classified under *ex-officio*, co-optative and representative members. Of the 30 Governing Bodies (managing 35 schools), eight have *ex-officio* members, 20 have co-optative members, particular interests are represented on 17, Local Governing Bodies (which include Town Councils, etc.) on 27 and the university colleges on 20. The West Riding County Council have representatives on all but three of them. It is also important to notice the measure of power over the assistant-masters placed within the hands of the Governing Bodies and head-masters respectively. The number of the assistant-masters and the total amount to be contributed out of the income of the school for their support is for the decision of the Governors after conference with the head-master; while with the head-master solely rests the appointment and dismissal of assistant-masters.

CURRICULUM.—The classical type of school has almost ceased to exist in the West Riding. It is considered that, of the two modern types of schools, the literary type is far more suitable generally to the requirements of an area like the West Riding, and would be still more universally adopted were the Government grant increased. A classification of the curriculum of 27 aided schools shows that only one school can be termed classical, while nine schools pursue a scientific or technical, and 17 schools a literary course.

EXAMINATIONS.—These are justly treated as standing among the chief external influences upon the schools, and are admitted on all hands to need much revision. This fact may be inferred from several references in the report. The one feature of a school by which its efficiency or inefficiency should be gauged in the opinion of Governors, parents, and, therefore, head-teachers, has been its "Table of Honours," or "List of Successes." Again, complaint is made of the attention given to the preparation of pupils for

special examinations at the expense of the rest of the school, of the inconvenience caused by the school years beginning and ending at different times to suit different examinations, and of the multiplicity of examinations generally.

Co-ordination.—Upon this important subject some useful hints are given, the relations of elementary and secondary schools, evening schools and classes, technical schools and institutes, and universities being considered. It is scarcely necessary to point out that the work of co-ordinating various forms of education lies almost wholly in the future. There is as yet no general system of organised and correlated educational institutions, each having carefully delimited functions and a definite place to fill. Guidance and even direction from a Central Authority may, therefore, become necessary in order that broad principles may be established.

The general object in view is that each institution should have recognised and simple aims, and that there should be recognised and simple methods by which each is related to all the other institutions co-operating. This will provide much work for many years. The task is of the greatest importance, as nothing would more quickly lead to increased attendance of scholars than a general understanding on the part of parents of the object of each school and of the benefits to be obtained from each established course.

It may be fairly said that now in many cases the head of an educational institution is bound to play his own hand against everyone else. This is so in the West Riding, where the smallness of numbers in attendance at the secondary schools, the want of appreciable endowment, and, in a few districts, the competition between schools, makes the addition of a single pupil of great importance. Such a condition of affairs can only be remedied by giving to the Governing Bodies that independence and freedom from financial embarrassment which would enable them to consider how to provide, each in their own proper sphere, a liberal education intended to secure for all classes of their pupils a sound intellectual foundation, and to fit them for the responsibilities of modern citizenship.

(4) REPORT ON PUPIL-TEACHER CENTRES.

This report is rendered in the same manner as the principal report upon secondary schools. A comparative tabular summary of the old and new Regulations for Pupil Teachers forms an extremely helpful adjunct to the report.

Mr. Acland's Introductory Note.

The new proposals of the Board of Education with regard to "intending pupil-teachers" and pupil-teachers will lead to the adoption of a considerable number of different methods, according to the needs of different districts, of improving their instruction and training. One of the most important objects in view is that they should be educated together with others who are entering other professions and adopting other kinds of work in life, so that the outlook of the future teacher should from the first be widened and broadened as much as possible. Another advantage which is to be aimed at is that there should be as much continuity as possible in their work, and that they should not, where it can be avoided, be passed from one set of classes to another, but rather remain attached to one institution throughout wherever this arrangement can be made.

It is certain that in the West Riding a variety of methods will have to be adopted utilising existing institutions and creating new ones—the preparatory class, the independent pupil-teacher centre, the higher elementary school, the hostel for rural teachers—all these and others may form part of the provision in different places.

But one method in connection with secondary schools may be described here, as it may be available in certain cases and seems to offer definite advantages where it can conveniently be adopted. The Board of Education's proposals contemplate giving secondary education to the "intending pupil-teacher" from twelve to 16, and giving instruction to the pupil-teacher in a pupil-teacher centre from 16 to 18. These two years from 16 to 18 may be spent by the pupil-teachers either as half-timers, half under instruction, and half in practice in the elementary school, or as whole-timers, *e.g.*, a whole year under instruction and a whole year in practice, or under other similar arrangements.

The method which seems to offer the greatest amount of continuity is that where the pupil-teacher centre can be merged into the secondary school under the same head and the same staff, but there are of course not a few towns and districts where this could not be done. Where this has been successfully arranged, as has already been the case in some places, the pupil has the great advantage of spending the five out of six years which are allotted for instruction, as apart from practice, between twelve and 18, under the same staff without changing from one institution to another.

Officially, of course, the secondary school and the pupil-teacher centre are separately recognised, but actually they are under the same head, and the "intending pupil-teachers" or pupil-teachers receive a nearly continuous course side by side with other pupils in

a secondary school with the same interests and the same patriotic feeling for the school and its traditions as are always to be found in school-life under the best conditions. It is, of course, assumed that only a reasonable number of such pupils are allowed in the school, for if they were largely to predominate, the old evil of herding them too much together would once more arise.

One of the chief points which remains for settlement under such an arrangement, namely, the way in which the period of practice in an elementary school shall be allotted, is being now carefully discussed by experts in the subject. There may be either two years of half-time or one year of whole time in the elementary school. If there are two years of half-time from 16 to 18 the examination for the King's Scholarship will be taken at the end of this time, and the period of whole-time instruction with the other scholars in the secondary school will close at 16. If, as some have suggested, a whole-time system be adopted, and one whole-time term be given to the elementary school as early as 14 or 15, and the other two whole-time terms (making the complete year) be given at the very end of the period of instruction, the examination would be taken at about 17½ or rather younger. One advantage of this proposal is that (except for a single term of absence at 14 or 15) the pupil would work throughout with all the other pupils of the secondary school, taking the same curriculum and never being separated off into special half-time classes. Such a plan is from the point of view of *instruction* better for the school and better for the pupil, who ought at 17½, after such a course as is here described, to be able (if at all really fitted for the profession) to pass any reasonable examination for the King's Scholarship without difficulty. It is possible that the plan here proposed does not exactly fit in with the present Regulations, but these Regulations are avowedly intended to encourage all reasonable experiments.

It is thought by some that the two whole terms spent in practice in the school at 18 may diminish the fitness for work of the pupils in the training college. But there are others well acquainted with training colleges who think that this kind of break and change will do no harm, and that the work in the training colleges will not ultimately suffer. The suggestion of a single term of practice at the age of 14 or 15 is made by those who think that in the case of capable scholars it will be a useful introduction to their future work at an early stage, and that in the case of those who prove quite incapable it would give the opportunity of advising them to adopt some other career.

This raises the important question of binding pupils by an arrangement which would involve a signed agreement by the parents upon the receipt of a scholarship, and, perhaps, a

maintenance allowance, for the purpose of instruction of intending pupil-teachers, and a moderate fine in case of breach of agreement. The details of this matter cannot be here considered, but it seems that if any large rate expenditure is incurred some system of binding will become almost necessary. And it is agreed by many that binding should not take place before 14.

The particular method of instruction of pupil-teachers, which is here described, has been dwelt on because this matter is being here considered in close connection with the secondary schools, present and future, of the Riding. When the Education Authority comes to consider the whole question it will no doubt find that considerable variety of treatment is desirable, and that several different methods must be adopted, but it is not improbable that in some districts the plan here described will be found useful.

The question of expense is a very important matter and cannot be treated at length. It appears probable that free places will have to be given in all cases and that in not a few cases maintenance allowance will also have to be offered. It is difficult to know exactly how this may be till the attitude of parents towards the new arrangements can be ascertained.

But it is extremely improbable that the necessary maintenance allowances would come in any case to less than £25,000 a year. It might be a good deal more. To complete the subject of the training of teachers the question of training college provision will have to be considered, but this cannot be dealt with in detail here. If our future teachers are to be trained at training colleges and the County Authority is to provide the necessary facilities in addition to those which already exist in the Riding, it is probable that this would not cost less than £6,000 a year.

It is unfortunate from many points of view that these charges which are connected with the necessary apparatus for elementary education should even in part have to be charged upon the rate for secondary education. There is much to be said for the State taking upon itself the whole expense of training as it would remove many obvious difficulties. But, without a much larger measure of State aid, little progress it is to be feared will be made towards a complete national system of training. Until such a system is obtained there will be much money wasted and comparatively little improvement in elementary education.

The Present Position in the County.

THE SUPPLY OF CENTRES.—Outside the county boroughs there is no institution in the West Riding solely dedicated to the training of pupil-teachers. There are 33 central classes or centres established

or carried on in technical or mechanics' institutes, in portions of elementary schools often before or after ordinary school hours, and in secondary schools. There are eleven of these situated respectively in the non-county boroughs and Shipley, in the rest of the administrative area and in the county boroughs. The amount of instruction varies very much in quantity at the different centres, and those centres where the greatest number of hours are given for instruction are chiefly those which were under the management of School Boards. Generally speaking, suitable situations have been selected for the centres, but very little attention has been given in some cases to the condition, accommodation or special characteristics of the building utilised. The centres are within easy reach of the schools served owing to the efficient tram and railway facilities in the county.

There are no less than 37 per cent. of the pupil-teachers in the administrative area who are not in attendance at any pupil-teacher centre. As in the case of secondary day schools the supply of centres is very fairly adequate in the more central parts of the county and in the mining and manufacturing districts. There is a very remarkable deficiency in the agricultural area. There is not much lack of actual accommodation in any of the centres, except on occasions when all classes come for instruction. It is, however, unsatisfactory and not uncommon that pupil-teachers engaged in board and voluntary schools which are situated within easy access of a centre do not avail themselves of the accommodation provided. The reasons for this consist in local jealousy, or want of funds, or absence of interest. As far as the supply goes the attendance is satisfactory.

TEACHERS.—The report does not hesitate to say that, taking the Principals as a body, many are lacking in initiative and freshness, and few of them know anything of the pupil-teachers' home life, or the influences affecting them outside the centre, and are seldom acquainted with the candidates' previous training and education. But the salaries are too low to attract the best men, even falling under those of head-masters of elementary schools. In the same way, the salaries of assistant-teachers are only equal to, or are below, those of certificated assistant-teachers in elementary schools.

PUPILS.—The comparative statistics given respecting candidates and pupil-teachers themselves are very instructive. About 37 per cent. receive instruction in their own schools, and the remainder at pupil-teacher centres. In 331 of the 1,036 schools in the administrative county no pupil-teachers are employed, these schools all being outside the non-county boroughs. About 15 per cent. of the pupil-teachers attend secondary schools of some kind

or another, but by far the majority attend too short a time to confer any practical benefit. Not more than 25 per cent. of qualified pupil-teachers enter training colleges.

CURRICULUM.—No great variety is aimed at, the differences mainly consisting in the various subjects that are perforce excluded from the time-table, owing to the paucity of hours available for instruction. The chief deficiency in curriculum is in the provision for physical training. This is the more serious, considering that the age at which pupils are attending the centres is the time when, more than any other, physical development should be encouraged. There is a very marked general absence of systematic instruction, and in some centres where provision is made for such instruction there is considerable inefficiency. This is caused by the shortness of time during which the pupils attend, so that any attempt to give full instruction in every subject is out of the question, and by the fact that most of the teachers are called upon to handle a great number of different subjects.

FINANCE. The annual expenditure upon the centres aggregates just over £6,000, of which £1,467 is made up by Government grants, £1,176 from the rates and £949 from the County Council.

THE NEED FOR CO-ORDINATION.—There is sufficient evidence to show that pupil-teacher centres are almost isolated units in the educational system. There is no real correlation with the work of the elementary schools at the base and with the universities at the head. And yet pupil-teacher centres should serve as a connecting link betwen the elementary schools and the universities, and should offer a through communication from one to the other. Such is far from being the case, and, apart from a distant relationship to the elementary schools, which arises from the use of common buildings and the service, in a few cases, of a common staff, there is little or no co-ordination.

(*D*) LANCASHIRE.

Introduction.

In September, 1903, the Higher Education Sub-Committee of the Lancashire Education Committee determined to report upon the whole question of higher education with the view to taking steps to promote the general co-ordination of all forms of education. This report has been presented to the Sub-Committee by the Director of Education (Dr. H. Lloyd Snape), and is put forward as a basis for the consideration of the County Committee. A separate section deals with the question of secondary education generally, and contains suggestions upon many points likely to arise in connection with the organisation of secondary schools in urban and rural areas, such as the type and classification of school, curriculum, management, location and relationship of one school to another, utilisation of endowments, examination and inspection, cost, and, lastly, the position of assistant-masters.

The most important and valuable of these suggestions are given here in an abridged form. As regards the changes advocated in the report, it should be noted that some have been met by the Board of Education's new Regulations for Secondary Schools applicable to the year 1904-5.

Another section of the report contains a brief survey of the existing provision for secondary education either within, or immediately adjacent to, the respective areas into which the administrative county has been divided for the administration of elementary education; it is shown where no secondary day schools exist or the provision is inadequate, and suggestions are made as to the nature and position of the additional schools required.

Owing to the amount of work involved, the Education Committee have decided to postpone the operation of a complete scheme for secondary education in Lancashire until next year.

Preliminary Considerations.

The county of Lancashire may be regarded as divisible into two portions—the rural, almost entirely north of the Ribble, and the urban, that portion south of the Ribble. The former contains a few large centres of population; the latter all but one of the county boroughs and nearly all the non-county boroughs.

In any survey of the supply of secondary education, regard must be had to the provision for secondary education in the county boroughs. The reasons for this are that it is necessary

for economy and success that a suitable secondary school of the best type should be situated within convenient reach of a large population; that the county boroughs are readily accessible from contiguous districts; that in the majority of the county boroughs means for providing secondary education already exist in the form of higher grade schools and grammar schools, and more specialised schools, such as pupil-teachers' centres and technical schools.

For several years past the County Committee have recognised the advantage of making arrangements whereby county students should be enabled to attend classes at the technical schools in county boroughs upon the same terms as other students by paying to the authorities of these schools capitation grants. For this session the fees and travelling expenses of pupil-teachers from the county elementary schools attending the various pupil-teacher centres, whether in county boroughs or not, are also paid.

The question naturally arises—might not a capitation grant be paid on certain conditions to approved public secondary schools within the county boroughs? This would be in accord with Section 23 (2) of "The Education Act, 1902." An attempt might also be made to arrange for Joint Committees for Secondary Education for the areas served by such schools, or to secure at least some representation on the Education Authorities controlling them, provision, of course, being made that each Committee should bear their due share of the cost of maintenance of the schools. An example of such joint action has been in existence for some years in the case of the Wigan Mining and Technical College, the scheme covering the utilisation for maintenance of the whole of the technical instruction funds, the equal representation of the County Committee and the Corporation upon the Governing Body the payment of an annual county grant of £500, and permission for county borough residents to compete for county scholarships and exhibitions. A similar arrangement might be extended to other county boroughs with mutual advantage.

But a fair proportion of the secondary education of the county is provided by municipal schools in the non-county boroughs and by endowed grammar schools. Many of the latter will require much alteration or extension of buildings before they can be recognised as affording satisfactory provision for secondary education in their districts. This may be done in two ways:—(1) by utilising part of the endowment; (2) by the County Council charging such sums to the area which the school serves, in accordance with Section 18 (1) (a) of the Education Act. The cost of their maintenance may be met from endowment (if any), fees, grants from the Board of Education and the Education Committee.

In seven of the non-county boroughs, where the rate levied under the late Technical Instruction Acts and now under Section 3 of the Act of 1902 is almost all pledged for capital account, good secondary day schools are carried on in the technical school buildings. Such schools are at present managed by the Education Committees of the respective boroughs: the supervision might in the future be entrusted to these Committees, with suitable representation from the County Committee and the Local Elementary Education Sub-Committees.

Management of Existing Secondary Day Schools.

The number of representatives to be added might be determined after consultation with the existing Governors approximately by the proportionate cost borne by the different bodies.

It has been suggested that it might be desirable to delegate to a large extent, as is already done in the case of elementary education, the control of secondary education to the Local Elementary Education Sub-Committees; but this course would not be practicable, so far as day schools are concerned because the schools in the non-county boroughs do not lie within the area administered by these Sub-Committees. In some of the areas there are no secondary schools, and where there are schools they are already managed under schemes of the Charity Commissioners. Moreover, in only a few cases can such a secondary school be said to serve only one district. These Local Elementary Education Sub-Committees cannot, therefore, have the same powers with regard to day secondary education as may be given to the non-county boroughs and larger urban districts.

It would appear from the above that the municipal secondary schools in non-county boroughs may be treated in much the same manner as endowed grammar schools. In both cases the buildings have either already been or will be provided by local funds; but the financing of those schools held to be necessary will fall on the County Education Committee. To both kinds of schools county grants would be made upon the usual conditions as to representation, inspection and approval of curriculum, teaching staff and accounts; and so forth.

Classification of Schools.

A AND B SCHOOLS.—The question of the classification and gradation of secondary schools is one of considerable difficulty.

In determining the general types of schools to be recognised or established, care must be taken to secure that within each class there shall be sufficient latitude to admit of some variation to suit

local circumstances; but with this proviso, it will probably be found desirable to maintain two classes of secondary schools. The Board of Education have divided the secondary schools to which they are prepared to make grants into two classes known as the "A" and "B" schools respectively. The authorities of these schools, which are at present conducted under the Board's Regulations, have generally adopted scheme "A." From an educational point of view the "B" course is the better one for pupils up to 15 years of age. It allows for a very wide curriculum, embracing an adequate amount of literary work. Sufficient science for the pupils of twelve to 14 years of age can be introduced into the curriculum without that premature specialisation in science which is engendered by the course "A." Another reason in favour of the adoption of course "B" is that in future a large proportion of the pupil-teachers (up to 16 years of age) will be largely educated at the various secondary schools; and for these students a sound training in general literary subjects is of greater importance than a systematic study of several branches of science.

It is, therefore, recommended that up to 15 or 16 years of age, course "B" should be adopted in all secondary schools; and that in certain places there may be provided for older students both courses "A" and "B." The "A" course is undoubtedly a good one, and, provided it has been preceded by a good literary education, may be utilised with advantage by those who will subsequently engage in business. In this way due provision will be made not only for training pupils for the university but also for pupils who propose to pursue either a commercial or industrial career. It is urged that the grants of the Board of Education to the two classes of schools should be made equal or nearly so, and should be payable for a longer period than four years in order to secure the retention of many of the pupils.

Greater freedom in framing curricula should also be given by the Board. These should generally embrace the usual English subjects, classical studies, French or German, or both, mathematics and experimental science. Provision should also be made for manual work, and in the later stages some regard should be paid to the preparation of boys and girls for commercial or industrial careers. The two types of schools might be termed first and second-class schools. The former would have two departments—a lower and an upper. To the lower department, pupils would be admitted at about twelve years of age, and it would provide an organised course of study of three or four years. Pupils who pass through this course could compete for the day senior county exhibitions. In entering the upper department, pupils would proceed to more

or less specialised courses of study, such as classical or literary, commercial, scientific and the course for pupil-teachers. It would not be necessary that in all first-class schools the upper department should be divided into four sets of classes. In many instances the pupil-teachers' centre would form a separate school, as is the case in many of the county boroughs. The nature and number of the specialised divisions in the upper department must depend very largely on the needs of the district served. Ordinary pupils might remain with advantage up to the age of 17 or 18, and in most of these schools provision would be made for the training of pupil-teachers, who would be employed for about half-time in elementary schools. First-class schools should be maintained in the various county boroughs, and also in 17 other places in the administrative area.

The second-class schools would correspond to the lower departments of first-class schools. They would afford suitable training for all pupils up to 15 or 16 years of age, including those who propose to become pupil-teachers. No pupil should be allowed to remain at them beyond 15 or at most 16 years of age. They would be more local in their character than the others. Such schools might be maintained at 14 places named in the administrative area. This would only entail suitable alterations and extensions in most cases, but might involve the building of new schools at possibly six centres.

HIGHER STANDARD SCHOOLS.—In many districts of Lancashire with a population of over 10,000 little or no provision exists for day secondary education, even where there is a considerable population. The only attempt which has been made in the direction of providing any higher form of education than is furnished by the ordinary elementary school is represented by a little extra work in one or two of the Upper Standards. It would, however, be unwise to proceed at once to provide even second-class secondary schools in such districts until it had been ascertained by experiment whether the need and desire for secondary education would warrant the expenditure. For this and other purposes a third class of school, which may be termed a higher standard school, might, with advantage, be established. In this proposed type of school provision should be made for the instruction, up to the age of 14 at least, of children who may have passed Standard VI. at, say, eleven or twelve years of age.

Many districts have provided buildings for the purposes of technical education, which are, for the most part, standing empty during the day time. These buildings would afford, with certain additions, excellent accommodation for a higher standard school.

To them the children from all the elementary schools who had passed, say, Standard VI., might be drafted, and thus form a higher standard school with a curriculum extending over two or three years. As the desire for secondary education grew in any particular district it would be an easy matter to convert this type of school into a second-class secondary day school.

These schools would not only serve to test, without undue expenditure, the local demand for something more than the ordinary elementary education but would perform other useful functions. They would act as feeders to secondary schools proper, as a certain proportion of the pupils, with or without the aid of the county day junior exhibitions, for which, up to 13 years of age, they would be eligible, may be expected to proceed from the former to the latter. Moreover, the establishment of such schools would widen the choice of candidates for the position of pupil-teacher. If the schools are to fulfil these functions, the fee charged, if any, must be a nominal one. There should be a large number of free places, which might be filled either by means of competitive examination, or, perhaps better, on the nomination of the head-teachers of the local elementary schools.

Six districts in the county are named where the experiment of establishing higher standard schools in the technical school buildings might be tried, and also 21 others where the population might require a school of this class; in districts where no technical schools are available elementary schools might afford suitable accommodation.

PREPARATORY SCHOOLS.—In some of the higher secondary schools it may be necessary to provide preparatory departments. Such provision is already made in connection with some of the day secondary schools which would be first-class schools. To most of the suggested second-class secondary schools preparatory departments are already attached: these are very desirable for those pupils who will, from about twelve years of age, pursue the courses in the higher classes of secondary schools, so as to get children who are to pass through a secondary school into close touch with such schools as early as possible. It will be necessary to endeavour to secure such co-ordination of studies as to facilitate the passage of pupils at the maximum age of twelve years from the small private schools or public elementary schools to the secondary schools. But, as the course of training in the elementary schools is drawn up in view of its completion at 14 years of age, and that in the secondary schools at 17 or 18, certain subjects which are not touched in the elementary school should commence at a comparatively early stage in the latter. Children should thus

enter the secondary school as early as possible, and obtain the fullest advantage of a properly graduated curriculum. The recognition of the preparatory departments as elementary schools should be sought from the Board of Education, or, it is suggested that, better still, they should be recognised for the purpose of earning grants under the Regulations for Secondary Schools. In any case a fee would be charged.

PROPRIETARY AND PRIVATE SCHOOLS.—In many parts of the county much of the secondary education is provided by private schools, and in some by proprietary schools; wherever such schools are efficient, they must be taken into consideration in any scheme. But before being officially recognised they should comply with certain well-defined conditions, and be subject to special investigation and report. The fact that a private school is recognised by the Board of Education for the registration of teachers is not a sufficient guarantee that the accommodation, equipment and instruction are satisfactory. No school should be recognised unless examined under the Board of Education Act, 1899, and the report be satisfactory. The recommendations of the Royal Commission on Secondary Education are taken as the basis for the initial and continued recognition of private schools. Where this is accorded and the school or schools are suitable and adequate for the district, no other school would be established out of public funds, but no grants from the same source would be made to private schools.

Proprietary schools might, however, be dealt with differently. There are only five such schools in the county area. In some cases the shareholders have for several years past made no profit, nor do they wish to make any, and all the funds at disposal are devoted to the development of education in the schools. It might be well to consider whether such schools might not receive grants from public funds, or, if the conditions were satisfactory, the schools might be transferred to the Education Committee.

MIXED SCHOOLS.—It has been assumed that boys and girls will be taught together in many of the schools. Educationalists are much divided on the question of co-education, but the authorities of those schools, *e.g.*, Ashton-in-Makerfield, Cartmel, Hindley and Abram, Leigh and Upholland, in which this method has been put into actual practice, regard the experiment as a successful one. If there is no insuperable objection on educational grounds, the plan is to be recommended on the grounds of economy, for the areas in which the number of children of both sexes who would attend a secondary school are comparatively small. . . . . Moreover, by gathering a larger number of pupils into one school a larger number of special teachers can be employed. . . . .

The Position of Assistant-Masters in Secondary Schools.

Means must be devised to provide a better class of assistant-teachers, even for smaller schools. It is held that particulars of the salaries of assistant-teachers in private schools recognised as well as public secondary schools should be open to scrutiny. The employment of comparatively inefficient and inadequately trained assistant-teachers is mainly due to the small salaries offered and uncertain tenure.

In some of the poorer grammar schools the governors have resorted to the expedient of "farming" the schools to the head-masters. The whole or part of the trust money is handed to the head-master, and he is permitted to retain the fees. He then becomes responsible for all the current expenses of the school, and is thus often only able to offer low salaries. The school is inadequately staffed, and only unsatisfactory work can be performed. The assistant-masters seek to obtain posts in other schools where higher salaries are offered. There is thus a constant succession of masters passing through the school, with a consequent serious loss of continuity in instruction and policy. The salaries of assistants are frequently quite as low when paid directly by the governors. The cause is generally the inadequacy of the endowment. The remedy can only be found in larger grants for maintenance being made from public funds.

As regards uncertainty of tenure, it is only necessary to state that the appointment of the assistant-masters often entirely rests with the head-master, and the possibility of capricious dismissal naturally also deters many of those who would be most suitable from entering the profession.

The suggested remedies for this state of affairs are—(1) that a definite scale of salaries be adopted for teachers in secondary schools and that the governors or other managers of public secondary schools seeking recognition be required to pay their assistants in accordance with the scale; (2) that the appointment or the dismissal of an assistant be made by the governors of the school, after considering the recommendations of the head-master, and that an assistant whom it is proposed to dismiss should be permitted personally to lay his case before the governors.

Inspection and Examination.

To secure the efficiency of secondary schools both inspection and periodical examinations are necessary. At the same time multiplication and overlapping of these should be avoided. The award of grants by the Board of Education is determined by such

inspection, and copies of all reports of His Majesty's Inspectors are forwarded to the Education Office. At the time of the initial recognition of a school or of material change in its organisation a joint inspection by the inspectors and representatives of the Education Committee should take place. A test examination of the educational work of each should also be made—one of the school as a whole to be held at regular intervals, say once in three years, and an annual examination of some pupils for the award of intermediate and leaving certificates.

EXAMINATIONS BOARD.—To inspire confidence in the examinations on the part of all concerned, it is of the highest importance that the Board of Examiners should be a strong and representative one. It should be constituted of representatives of the Board of Education, the universities, teachers in secondary schools and the Education Committees of the county and the county boroughs. Such a Board could not but have the happy effect of bringing into closer touch with one another the local universities and the secondary schools throughout the county. The Board would, in all probability, be recognised by the Board of Education for the conduct of the triennial examinations of schools.

In addition, the new Board might institute a series of annual examinations, the standards of which would correspond to those to which it might reasonably be expected should be attained at the normal leaving ages at the various grades of schools. There should be three grades of examinations. (*a*) The junior examination and preliminary certificate, which would be open to pupils from eleven to 13 years of age, would test the fitness of pupils in the public elementary or higher standard schools to enter the various secondary schools, ascertain the fitness of pupils to pass from the preparatory departments of the secondary schools to the lower departments of the first-class schools or to the higher forms of the second-class schools, and determine the award of the day junior county exhibitions and the selection of candidates for pupil-teachers. (*b*) The intermediate and certificate examination, which would test the work of the pupils from 15 to 16 years of age in the first and second-class secondary schools, would be the leaving examination of the latter, form a test of the work of the pupils before passing from the lower to the upper departments of a first-class school, be used for the award of the county day senior exhibitions, and determine the fitness of probationers. (*c*) The final school examination and leaving certificate for more specialised courses of study (literary or classical, commercial, science) should exempt its possessors from the Matriculation Examination of the Lancashire, and, if possible, of all other universities.

Cost of Secondary Schools.

There is very great difficulty in arriving at any reliable estimate of the cost of secondary education. In the case of public secondary schools, with the exception of the comparatively few largely endowed schools, there are practically only three sources of income, viz., the fees of pupils, grants from the Local Education Authority and the Board of Education. In many endowed grammar schools the endowments will be to a large extent absorbed in making such extensions and alterations in the buildings as are necessary to comply with the sanitary and other requirements of the Board of Education as a necessary preliminary to recognition by that Board, and any residue will be needed to maintain the premises in a satisfactory condition. Hence, endowments cannot be relied upon as a source of maintenance in the future.

It has been recommended that capital expenditure should be charged on the locality which the school serves or is intended to serve. Many districts have utilised the concurrent power to rate to the extent of one penny in the pound in order to erect buildings for technical education—a suitable object to which local rates may be devoted. Local aid is more readily forthcoming for buildings than for maintenance. Hence, whilst capital expenditure may well be left to local effort, it will probably be best, in order to secure efficiency, to have recourse for the general purposes of maintenance of secondary schools to a central fund established by means of county rates.

It has been estimated that the best combination of economy and efficiency is to be obtained in a school which has from 200 to 300 scholars. From various statistics compiled for the Royal Commission on Secondary Education it appears that, after excluding all charges for rent or interest on capital for buildings and also all provision for scholarships, the gross cost of maintaining a first or second-class secondary school varies from £10 to £13 per pupil.

In all the public elementary schools in the administrative county (with one exception) fees are charged, varying in amount from £1 to £16, but mostly falling between £4 and £8 per annum. It is held that the fees are too high at many of these schools. There is undoubtedly a considerable and widely-spread demand for schools which would provide a sound secondary education at an annual fee of from £4 to £5. To meet this demand a more uniform scale of fees is suggested as follows:—£3, £4 and £5 per annum for the preparatory, lower and upper departments respectively of first-class schools; and for second-class schools £4, and for the preparatory departments therein (if any) £3. As regards Government grants,

it is considered unsafe to assess these at more than an average of £2 10s. per pupil throughout both classes of schools.

On this basis the cost per pupil to the county would work out at £3 10s., which would be the average deficiency, calculating the average fee at £4, the average Government grant as above, and the gross cost of maintenance at £10.

Number of Pupils requiring Secondary Education.

Returns respecting secondary schools in Lancashire were compiled in May, 1903. There were in the early part of that year, in all, 4,970 boys and 4,751 girls in the secondary schools within the area of the administrative county. Of the total number of 9,721 pupils, there were only 3,476 in the endowed grammar schools, schools of science, and proprietary schools; the rest were all being educated in private schools.

It is evident that there are at least 3,500 children requiring an education of the kind outlined in the scheme for first and second-class schools; but, if increased facilities for secondary education were provided, the number of children who would attend these schools would probably speedily reach 5,000. If the net cost to the county be taken as £3 10s. per pupil, this would involve an expenditure of £17,500. If the number of pupils who will take advantage of the secondary schools in the county boroughs be assumed to be 2,000, and if a capitation grant of £1 10s. per pupil were paid to the authorities therein, a further sum of £3,000 would be required. On this assumption the county would have to find a sum of £20,500 from the rates in support of day secondary education.

Endowments and Scholarships and Exhibitions.

As it is anticipated that the endowments hitherto utilised for secondary education will be largely needed for initial capital expenditure and the upkeep of school buildings, there is no likelihood that the number of exhibitions maintained from this source can be materially increased. But it is urged that another source besides the Customs and Excise Grant, which has hitherto supplied large funds for secondary school scholarships, should be sought.

There are endowments connected with many of the elementary schools in the county area, the total annual yield of which is about £6,000. These have been utilised in maintaining the schools or in enabling selected pupils to attend them. But, as now, the cost of maintenance is thrown upon the rates and fees are no longer

charged, it is suggested that with the consent of the Trustees, the Board of Education . . . . and the managers (if necessary), the whole of the endowments be devoted to establishing exhibitions to enable pupils to pass from elementary to secondary schools. To carry out this proposal would be, in some instances, practically to restore the funds to their original purpose, viz.: that of aiding secondary education . . . .. Children residing within the parish or parishes, for the benefit of which the endowment was originally founded, should, of course, have the first claim to any exhibitions which might be established . . . .

III.—THE ADMINISTRATION OF PART II. OF THE EDUCATION ACT IN NORFOLK.

By F. H. Millington, J.P., Vice-Chairman of the Higher Education Sub-Committee.

INTRODUCTION.

In 1894 I wrote an article, which was published in "The Record" for April of that year, entitled "Technical and Secondary "Education in an English County." In that article I gave a summary of the work begun and being then carried on by the Technical Education Committee of the Norfolk County Council. The Committee had been appointed in 1891, and, by 1894, the broad outlines of their various schemes had been clearly defined and three full years' work done. From that date until the Education Act of 1902 came into force, the Technical Education Committee carried on and developed the work mainly on the lines so well laid down during the first three years. Lord Walsingham was the first chairman, but at the end of the first year the office devolved upon Mr. H. Lee Warner, in whose hands it remained until the end of the career of the Technical Education Committee. For eleven years Mr. Lee Warner devoted himself with untiring energy and ability to the arduous task. Besides the work inside the borders of the county, Mr. Lee Warner kept in touch with the wider educational movements throughout the country. He visited schools and institutions in different parts of England and abroad, attended all kinds of conferences and meetings and contributed to the work of the Royal Commission on Secondary Education which reported in 1895. Only those intimately connected with educational work in Norfolk know and realise fully what the county owes to Mr. Lee Warner. It was only fitting that he should be elected chairman of the new Education Committee when formed in 1903.

The work and staff of the Technical Education Committee were transferred to the new Education Committee in 1903, the appointed day for higher education being May 31st, 1903. The Education Committee consist of 36 members, 27 being County Councillors and nine selected or co-opted members. The services of Mr. E. Pillow, who had acted as secretary

PASTON GRAMMAR SCHOOL, NORTH WALSHAM (SCHOOL HOUSE). (*See page* 470.)

PASTON GRAMMAR SCHOOL, NORTH WALSHAM (LABORATORY). (*See page* 470.)

to the old Committee since 1891, were retained; Mr. W. D. Bushell, M.A., who had had a distinguished university career followed by some experience in the office of the Board of Education at Whitehall, was appointed chief secretary. As was the case in most of the other counties, the Education Committee divided themselves into three branches or sub-committees—elementary education, higher education and finance. With the work of the Elementary Sub-Committee I am not directly concerned in this article. The Higher Education Sub-Committee comprised eleven members. For the first year, Mr. H. Lee Warner filled the post of chairman, as well as that of chairman of the whole County Education Committee; but, at the end of the year, having seen the Sub-Committee through their preliminary difficulties, he relinquished the chairmanship of the Sub-Committee to Mr. E. H. Evans-Lombe. It was clearly recognised that the first year would be a period of transition and that great care and caution would be required to define the policy of the County Education Committee as regards higher education. The Committee had to take over the varied work transferred to them by the Technical Education Committee without causing a break in its continuity; to gradually introduce the changes consequent upon the Education Act of 1902, and the new Regulations of the Board of Education; to carefully decide upon new lines of action and spheres of work; and to see what section, if any, of the old work could be modified or abandoned. The new Regulations of the Board of Education relating to secondary schools, to evening schools and classes, and to training of teachers and pupil-teachers contained many wide and sweeping changes and have added considerably to the difficulty of bridging over the transition period. It was decided to carry on most of the work bequeathed to them by the late Technical Education Committee, to cordially accept the ideas and policy of the Board of Education as contained in their Regulations, and to gradually adopt the various schemes thus rendered necessary. The directory of higher education issued by the new Committee has been thoroughly revised and re-arranged on this basis; and, although no very revolutionary proposals have been made, a great deal of quiet and, it is hoped, useful work has been done by the Higher Education Sub-Committee and the staff.

I now propose to describe, as briefly as possible, the work at present being carried out in the county of Norfolk, which, by the way, is not by any means an easy county to administer. It ranks fourth in area and twentieth in population among the English counties. The population, after deducting Norwich and Yarmouth, is 313,504, which is a little less than it was in 1891, when it totalled 318,000. It is not particularly well served by railways—or,

to put it another way, not much use can be made of railways from the point of view of serving education. Higher education, so far as Education Committees are concerned, means everything connected with education that is not elementary, or everything except the work done in elementary schools. It covers a vast and varied field, and ranges from the development of fish culture to the coaching of senior wranglers. It is, therefore, not easy to arrange the different parts under logical and coherent heads. I shall, however, adopt the classification laid down in the county directory of higher education, and deal with the work under the following sections :—

(*a*) Evening Schools and Classes.
(*b*) Agriculture.
(*c*) Domestic Science and Housewifery.
(*d*) Sanitary Science and Health.
(*e*) Secondary Schools.
(*f*) Scholarship Schemes.
(*g*) Training of Teachers.
(*h*) Finance.
(*i*) General Considerations.

A.—EVENING SCHOOLS AND CLASSES.

The history of the attempts to develop a system of evening schools in England has yet to be written. Many years ago we had the establishment of classes under the old Science and Art Department. I entirely agree with Huxley, who said—" I have " often expressed the opinion, and I repeat it, that during the years " they have been in existence these classes have done incalculable " good." At a later period we had Mr. Acland's famous Evening School Code, which gave such an impetus to evening class work. Since then we have had a great many changes in this matter, and I am not sure that they have always been for the better. It seems to me that during the last few years there has been a feeling rather adverse to evening classes. Norfolk, like other places, has felt the effects of the various changes, and there have been a great many experiments tried. A great variety of subjects have been taken up at different times; but, after twelve years' experience, things have worn down into something like a system which I will now describe. First, as regards organisation. The system adopted in Norfolk has been to carry on the work through local committees. The County Education Committee issue their directory and they lay down therein the rules and conditions under which classes may be carried on. Grants are offered, or payments made according to a definite scale, and there is also further aid in

the way of meeting incidental expenses; through their staff, a supervision is exercised over the classes; and they retain the power to refuse recognition if the subjects selected are considered unsuitable. The local committee, which is generally based upon the County Council district as an area although there may be more than one committee in one area, have their own correspondent, and decide what classes to apply for, and, subject to the rules of the directory, administer the funds received. They select and appoint the teachers. In some of the small towns, it has been possible to get special teachers for some of the subjects—peripatetic teachers in the direct employment of the central County Committee have also been used; but, generally speaking, the bulk of the work has been done by the teachers attached to the various elementary schools. The rate paid to teachers by the committee varies from about 6s. to 10s. per evening of two hours. Under this section are included now only those schools and classes where regular systematic instruction, supplementary to the education begun in the primary schools, is given in properly organised courses during the winter months, and comprising not less than 20 lessons. In all cases the classes must be conducted under the Board of Education Regulations. The classes may be divided into two groups—science and art classes, and those dealing with general subjects.

It has not been possible to form many science or art classes, but there have been a great number of ordinary evening school classes. Last year classes were held in the following subjects:—

	No. of Classes.	No. of Students.
Science or Art	46	509
Agriculture	8	147
Arithmetic, Commercial	70	1,317
Book-keeping	6	154
Botany	5	118
Carpentry	16	293
Chemistry	9	205
Drawing	81	1,526
French	2	36
Commercial Geography	60	1,098
History	25	486
Mensuration	22	442
Shorthand	7	142
Woodcarving	9	210
Commercial Correspondence	15	284
Totals	381	6,967

There are a few classes not included in the above. Of course, the same student sometimes attends more than one class. The following analysis, of evening schools only, will, perhaps, help the reader to form an estimate of the extent and value of the work done :—

Summary of Evening Schools.

Session.	No. of Classes.	Individual students.	No. of Subjects Taught.
1900-1 ...	271 ...	1,917 ...	24
1901-2 ...	349 ...	2,094 ...	23
1902-3 ...	361 ...	2,157 ...	21

Figures for 1904 not yet available.

Cost of Evening Schools.

The cost of the above, according to the published accounts, is shown in the following table :—

Session.	Total Cost. £	s.	d.	Government Grant Received. £	s.	d.
1900-1 ...	4,069	6	7 ...	664	13	9
1901-2 ...	3,365	12	2 ...	809	19	11
1902-3 ...	4,343	5	9 ...	1,982	10	6
1903-4 ...	3,073	1	0 ...	1,859	17	1

It will be seen from the foregoing that grants paid by the Board of Education cover about half the cost of these schools and classes, on the existing basis of working.

I have given the details of this work very fully as there is an idea that some money is being frittered away on evening schools and classes; that unsuitable subjects, in some cases, have been chosen; and that they have not been of much real use. During the twelve years the scheme has been in operation, some experiments have undoubtedly been made and abandoned; and a considerable amount of ingenuity has been expended in obtaining the maximum grants from the Technical Education Committee. Now, however, experience has shown what classes are suitable to the various districts; and, after careful examination of the details of this matter, I am convinced that it is difficult to put one's finger on many definite cases where it would be advisable to cut these classes down or to abolish them. One of the favourite arguments, for example, against the classes has been that as it is impossible to make carpenters by giving youths 24 lessons in wood-work and drawing, therefore the whole thing was useless. The objectors have failed to recognise the real use of manual training in education. It is not to make carpenters, but to develop certain faculties which mere book-work does not do. Manual training raises the level of accuracy in all other subjects, and fosters a

healthy social attitude towards labour. The future of the evening schools and classes is one of the problems for the County Education Committee to deal with. I am quite certain that this work ought to be maintained and developed. It ought to be possible for young people of both sexes to continue their education after leaving the elementary schools at 13 or 14 years of age. Except for the picked few, who will be drafted into our secondary schools by scholarships, the only means of securing this continuity will be by associating such students with the evening schools. At the same time, the system now in use must not be looked upon as perfect, or as meeting the whole of the circumstances. It is just possible that the plan of working through local committees has served its purpose, and that it will be more economical and efficient to gradually bring the classes under the more direct control of the central County Education Committee and staff at Norwich. One great drawback of the local committee system is that it leaves whole districts in the county untouched: it is also too irregular in action, and does not secure the required continuity of effort. The system has answered admirably so far as regards familiarising the country districts with the idea of evening schools, and affording a comparatively cheap series of experiments. Now that nearly the whole expense of maintaining the classes is borne by public funds, they ought, in the future, to be better organised and made a more definite and harmonious part of the complete educational system. There is a really useful place for a good system of evening schools. It is a mistake to think that secondary schools, even when fully provided, can cover the ground or do the work that evening schools ought to do. A great deal is being said at the present time about making rural education harmonise with rural life. It seems to me that the evening schools offer the finest possible opportunity of carrying out this idea. The primary school should lay the basis of a sound, general and suitable education; but for the immense mass of the labouring and artisan population the evening school offers the most promising, if not the only, field for further development.

B.—AGRICULTURE.

Norfolk is one of the foremost agricultural counties, about 60 per cent. of the population depending directly upon agriculture for a livelihood. It is, therefore, fitting that the Education Committee should do all that lies in their power to promote the interests of our greatest industry. So far as the Higher Education Sub-Committee is concerned, this idea has been kept in view.

Mr. Evans-Lombe, the chairman, Mr. Sancroft Holmes, Mr. C. L. Buxton and Mr. Le Strange are large landowners; Mr. Sapwell and Mr. Sheringham are practical farmers; and Mr. T. B. Wood is identified with the Cambridge Board of Agricultural Studies. It will thus be seen that agriculture is very strongly represented on the Committee, and I can bear witness that any proposal relating to agriculture always receives the fullest consideration. The various ways in which the studies bearing on agriculture are aided are fully set out in the directory. Although they embrace no very large or pretentious schemes, still, taking one year with another, from £1,600 to £1,800 are spent upon objects directly connected with agriculture. Roughly, this forms from one-fifth to one-sixth of the income derived from the Local Taxation (Customs and Excise) Fund; the Committee, therefore, cannot be charged with parsimony or want of generosity.

The Education Committee form one of the constituents of the Cambridge Board of Agricultural Studies, a body too well known for their excellent work to need any description. To this Board the Committee make an annual maintenance grant of £100, and a further annual grant of £100 for the purpose of defraying the cost of agricultural experiments which are carried out on farms in the county of Norfolk but under the direction of the Cambridge Board. The results attained are published and circulated. A good grant is allowed, from year to year, towards defraying the expenses of the dairy exhibition at the annual show of the Norfolk Agricultural Association and for prize competitions in butter-making and horse-shoeing at the same show. Smaller grants are also made for similar purposes to local agricultural shows in the county. Arrangements are annually made with the Eastern Counties Dairy Institute by which ten days' courses of instruction in dairy work are given in suitable centres: these have been conducted for many years, about twelve centres being visited each year, and, although Norfolk is not a dairy county, much good has resulted from these classes. The Committee employ, as lecturer on horticulture, Mr. C. W. Miller, who visits selected districts, lectures on fruit and vegetable culture in the evenings, combined with practical demonstrations in the day time. He follows a properly arranged course of work, varied to suit the different seasons of the year, and visits about 36 centres, each comprising several villages, in the course of the year. On much the same lines, Mr. M. A. Swaffield deals with poultry-keeping. He gave courses of four lectures, with demonstrations, in 22 centres last year. A little money is also spent on bee-keeping lectures. A travelling farriery

school is maintained by the Committee. The van and forges move about under the charge of Mr. C. Goward, R.S.S., who gives practical instruction, which is supplemented by lectures on veterinary science by Mr. J. Pollock, F.R.C.V.S. Last year 18 centres availed themselves of this scheme. The Committee also offer aid in the provision of instruction in land surveying and in other subjects (*i.e.*, fish culture); but there has been little or no demand in this regard. Instruction in agricultural chemistry and botany form part of the work of many evening schools. Most of the various branches of this agricultural work are supplemented by a system of prizes and minor scholarships. The Committee also offer agricultural county scholarships, some of £50 a year for two years, tenable at Cambridge, and some of £15 for a short course held annually at the Essex County Technical Laboratories, Chelmsford. As was pointed out, the expenditure upon this branch of the work of the Committee varies from year to year. In the year 1903-4, which may be taken as an average one, it amounted to £1,683 6s. 8d., made up as follows:—

	£	s.	d.
Bee-keeping	22	2	6
Dairy-work	300	0	0
Farriery	210	0	0
Horticulture	250	0	0
Poultry-keeping	123	3	5
Shows and prizes	284	8	0
Cambridge Board of Studies and for experiments	200	0	0
Scholarships	293	12	3
Total	£1683	6	2*

C.—DOMESTIC SCIENCE AND HOUSEWIFERY.

Under this heading are placed all the various subjects specially connected with women's work, such as cookery, laundry work, dressmaking, millinery and domestic economy. The greater part of these operations is carried on in conjunction with the Norfolk and Norwich School of Cookery and Domestic Science. There are, however, a number of evening schools where cookery, needlework, and domestic economy are taught as class subjects by teachers attached to the elementary schools. The regular classes in

* The money spent on teaching agriculture, chemistry and botany in evening schools is not included in this total.

cookery, etc., generally extend over ten lessons. They are taught by teachers from the Norwich School of Cookery, and are arranged in centres so that the same teacher may conduct classes in four or five villages attached to the one centre. Another very important part of the work is the system of domestic training carried on at the school in Norwich. Three months' courses of complete training in domestic work are given to selected pupils (girls) who must be over 14 years of age. The pupils are selected on the recommendation of local committees, and the whole cost of tuition, board and lodging is paid by the Education Committee. In fact, the system is one of domestic science scholarships. From 40 to 50 girls are passed through the school each year, and, as this training has been going on many years, several hundred girls have had the benefit of it. I am told, by those who are better able to judge than myself, that this is one of the best things the Committee have done. The Committee offer a domestic science scholarship to women who desire to become teachers, and they offer to aid also certificated teachers to obtain qualifications in the subjects of domestic science. This year the whole of the syllabuses connected with this section were thoroughly revised by Mrs. Russell Colman, who is connected with the School of Cookery and who is also a selected member of the Education Committee. A few statistics will conclude all I have to say on this part. In the session 1903-4, there were nine evening schools teaching one or other branch of domestic science. Classes in 14 centres, four or five villages to each centre, were taught by teachers from the Norwich School of Cookery. During the last three years, 47, 46 and 35 girls respectively have attended the Norwich School for the three months' course. The cost of the work done in this section, exclusive of that portion done in evening schools, is given as follows :—

Session.	Cost. £	s.	d.
1901-2	548	11	11
1902-3	584	11	1
1903-4	499	1	5

D.—SANITARY SCIENCE AND HEALTH.

A very brief space will serve to describe the work of the Committee as regards this branch. They offer to aid the spread of sound knowledge relating to sanitary science and health. Where there is a local demand, they will help to provide St. John Ambulance lectures, lectures on health and sanitary science, and

will aid in the training of nurses. The St. John Ambulance lectures are given by local medical men, and the health lectures by lady lecturers in the employment of the Committee. Practically, the St. John lectures and the health lectures cover this work, as the other offers have not been very freely accepted. The operations in this section have varied very much in different years. In the early years, more money was spent than of late. The following table shows the expenditure during the last four years :—

Session.	Health Classes.	Ambulance Classes.	Cost. £	s.	d.
1900-1	31 ...	14 ...	221	11	10
1901-2	31 ...	16 ...	233	14	3
1902-3	33 ...	25 ...	319	17	6
1903-4	16 ...	4 ...	132	19	7

E.—SECONDARY SCHOOLS.

Before the passing of the Education Act of 1902, the limitations imposed by the Technical Instruction Acts (now repealed) made it difficult for Technical Education Committees to deal in a comprehensive manner with the problem of secondary schools. These difficulties were, in practice, found to be much greater in counties of large area than in boroughs and cities. Probably in no place were they greater than in Norfolk. This is the main reason why so little in the way of developing a complete system of secondary schools has been done. The Technical Education Committee, so far as they were able with their limited powers and the other demands upon their funds, assisted the existing secondary schools. This assistance was rendered by way of capitation grants, based upon the teaching of certain scientific and technical subjects to Norfolk pupils; of building grants, chiefly for laboratories, dependent upon local effort raising equivalent amounts; and of apparatus for the teaching of scientific subjects. Indirectly the scholarship scheme was of assistance to the schools, as it brought to them a number of suitable pupils for whom the Committee paid liberal fees. It was also the reason why the Committee arranged for the Cambridge Syndicate to annually examine the schools and for bearing the cost of the same. In one or two cases the Committee felt justified in giving special grants towards the salaries of science masters. The schemes of the various schools were also modified to admit of the appointment of representative governors by the Technical Education Committee. This brief sketch shows, in outline, the connection of the Technical Education Committee with the secondary schools.

One of the first acts of the Higher Education Sub-Committee was to appoint a special sub-committee to consider the whole question of the provision of secondary schools for the county. Later on, I shall have something to say about this report. The Committee also determined to use the increased powers given by the Act of 1902 so as to deal more liberally with the existing schools and to help to place them on a sound financial and educational basis. The capitation payment was simplified and made into a grant per Norfolk pupil, without limitation as to number of pupils or subjects taught. An additional aid grant, to be devoted to the improvement of the salaries of the teaching staff, was offered on certain conditions. The offer of building grants was maintained. The object of these alterations was to help the schools forthwith. Probably it may be necessary, when a complete scheme for the whole county is worked out, to modify these regulations. The present stage, in this as in other matters, is that of transition. The revised regulations will, however, be of very considerable help to the existing schools. Full details of these regulations will be found in the directory—a very brief summary of them will, therefore, suffice here. The capitation payments are £2 for every Norfolk pupil, and £5 for every county scholar attending the school, in addition to the regular fees. The additional aid grant will be a definite annual sum fixed by the Education Committee after considering all the circumstances of the school; its primary object is to secure properly paid assistant teachers, and the money must be devoted to that purpose. The school authorities must also be prepared to work with the Committee in their pupil-teachers' scheme, scholarship scheme, and, where possible, allow the use of the school premises for evening classes.

The special sub-committee, meanwhile, had devoted a considerable amount of time and labour to the preparation of their "Report on "the supply of Secondary Education in the Administrative County "of Norfolk." This report was presented to the Education Committee in August last and ordered to be circulated: as it has been well circulated and is easily obtainable, I shall only reproduce a few of the salient points. The report gives a survey of the existing schools and an estimate of the needs of the county. There are about 1,400 pupils now attending secondary schools, and it is estimated that there should be places for at least 3,000. The schools of Norwich, Holt and King's Lynn provide education for boys up to the age of 18; while those of North Walsham, Thetford and Swaffham cater for those whose average age at leaving may be taken as 16. There are only two public schools for girls in the administrative county, namely, King's Lynn and

PASTON GRAMMAR SCHOOL, NORTH WALSHAM (SCHOOLROOM). (*See page* 470.)

PASTON GRAMMAR SCHOOL, NORTH WALSHAM (OLD SCHOOLROOM, NOW THE DINING HALL). (*See page 470.*)

(Showing the place where Nelson sat during his three years at the school, and the brick on which he cut his name.)

(From a Photo by Maclean, N. Walsham. Copyright.)

Thetford. The report recognises the work done by private schools, and concludes with an outline of general policy and some brief recommendations which I reproduce :—

Outline of General Policy.

We have dealt briefly with the existing provision for schools and with the needs of the county. In doing so we have divided the schools into two grades rather than three, by an age limit rather than the nature of the teaching, recognising that it is impossible to make a hard and fast line of distinction. The policy of the State as regards secondary education is now defined. The Act of 1902 has made it the duty of the Education Committee, which is the Local Authority, to see that its area is properly and adequately supplied with secondary schools. The Board of Education Regulations for 1904-5 have clearly laid down the lines upon which this work should be carried out, and defined the functions of the various authorities concerned. The Board of Education will give grants to recognised schools, and by its inspectors will exercise a general supervision. The functions of the other authorities cannot be better expressed than in the words of Mr. Morant, which we quote:—"The Local Authority will be consulted, not "only as regards the eligibility of a school for recognition in "the first instance, and for continuance of recognition year by "year thereafter, for the purposes of grants, but on all questions "which concern the relation of the school to other schools and "places of education within the area of the Authority, or which "affect the action of the Authority whether in the way of "expenditure or of educational policy." Local interest and local knowledge will be provided by the local Governing Bodies, who will preserve "as much responsibility, independence and "freedom of action as is consistent with effective control of "educational policy and educational provision, by the Local "Authority in its own area, and by the Central Authority in "all areas." While it is of the utmost importance that local interest in the management of the schools be preserved and developed, "the head-master or the head-mistress should not "be liable to any unnecessary interference in matters of school "administration for which he or she is primarily responsible."

We cordially accept the policy laid down in these Regulations, and think it is the duty of the Education Committee to co-operate in carrying it out. We trust, however, that the scale of grants offered by the Board of

Education may be made more liberal, and altered so as to embrace all the pupils attending secondary schools and not merely those over twelve years of age. Much of the past work of the Education Committee and of the Technical Education Committee, which it succeeded, falls in line with this policy. The scholarship scheme for the county of Norfolk which has been in work for twelve years, provides, to a certain extent, the educational ladder for the promising youth of the county. The directory of higher education for 1904-5 has been thoroughly revised, and deals more liberally with existing secondary schools than was possible in previous years. When this revised scheme of aid is in full work, the needs of the existing schools will, we hope, be adequately met. The problem will then be to deal with those parts of the county where no secondary schools exist. The small towns will afford convenient centres for populations of 15,000 to 20,000, and in them schools for both boys and girls should be provided to accommodate from 100 to 200 pupils. Where private or proprietary schools exist, obtain recognition from the Board of Education, and do their work efficiently, they ought not to be destroyed. The most important factor in the provision of new schools is the local desire and enthusiasm for them. Where this exists, the work will be comparatively easy. Without it, the efforts of the Education Committee will be rendered null and void. To provide the required number of new schools will necessarily be a work of time. It will not be possible to deal with all parts of the county at once; those localities which evince the earliest and greatest enthusiasm will have the first claim to be earliest dealt with. The progress achieved in this matter during recent years at Lynn, Swaffham and Thetford is an augury that, with the increased powers and facilities now available, Norfolk will eventually be adequately and properly supplied with the secondary schools so necessary to its educational welfare. It is in this spirit that we make the following recommendations:—

Summary of Recommendations.

(1) Any public school whose time-table, staff, and scale of salaries are considered adequate should receive assistance in accordance with section VI. of the directory.

(2) Reciprocal arrangements should be made with border Authorities whereby Norfolk may be able to make use of their secondary schools and they of ours. This reciprocal assistance should be given on the basis of paying for services rendered.

(3) All Urban District Councils should be invited to exercise their powers, under Section 3 of the Education Act, 1902, of raising a penny rate to be used in aiding the secondary schools which serve their area.

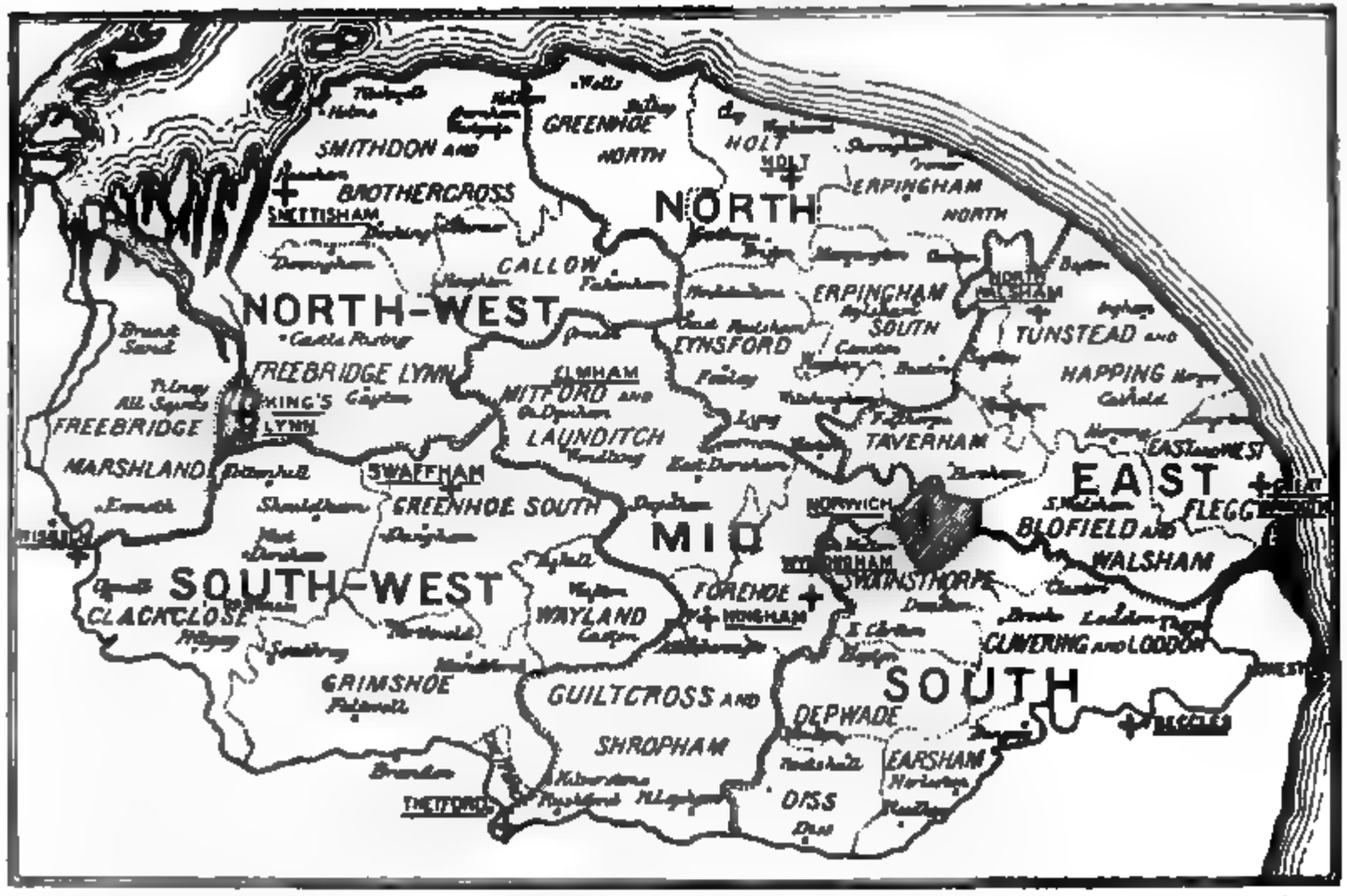
(4) Places like Dereham, Diss, Fakenham, Melton Constable, Stalham and Wymondham may be mentioned as suitable centres for secondary schools. Those localities where greatest interest is shown, and most contributions offered, should be dealt with first.

(5) The unexpended balance of £7,000 from the grant from Customs and Excise should be voted as occasion arises for building grants on the lines indicated in section VI. of the directory.

(6) The scholarship scheme of the Education Committee should be maintained. The formation of "local scholarships" under the Regulations of the Board of Education should be encouraged so as to develop and complete the educational ladder.

(7) Existing efficient private schools should be recognised for the work they do. They should be encouraged to accept public inspection and examination, and the Local Authority should not compete with them. They should be allowed to receive holders of county scholarships where the parents so desire.

The question of secondary schools is so intimately connected with other branches of the work of the Committee that I shall defer the discussion of the policy laid down in this report to the final section of this article. It will, however, be useful to detail some of the changes which have taken place during recent years. In the early days of the Technical Education Committee, it was hoped that the county school at Elmham could be utilised as a central county school, with a distinct bearing upon agricultural studies. Some considerable efforts were made, but the difficulties were too great; the idea was abandoned and the school ceased to exist. At Wymondham, the grammar school, owing to financial and other difficulties, is at present closed—it is to be hoped only temporarily. The Gresham school at Holt, after existing for a long time as a not very active or very large school, has been completely reorganised. The property, which is managed by the Fishmongers' Company, formerly brought in a few hundreds a year, but in 1899, when the leases fell in, it was re-let for about £6,000 a year. Something like half of this income has been mortgaged to raise the large sums of money spent on the splendid



MAP SHOWING + PUBLIC SECONDARY SCHOOLS IN NORFOLK (*See pages* 475, 477.)

(a) *Public or Endowed Schools within the boundary of the administrative county :—*

Boys.

1. Hingham Grammar School.
2. Holt Grammar School.
3. King's Lynn Grammar School
4. King's Lynn Technical School.
5. Walsham Grammar School.
6. Brettisham Grammar School.
7. Swaffham Grammar School.
8. Thetford Grammar School.
9. Wymondham Grammar School.

Girls.

10. King's Lynn High School
11. Thetford Girls' Grammar School.

(b) *Public or Endowed Schools contiguous to the administrative county :—*

Boys.

12. Norwich Grammar School.
14. Yarmouth Grammar School.

Girls.

17. Norwich High School

ranges of buildings. Under Mr. Howson, the able head-master, the Holt school seems likely to develop into a great modern public school; the 20 scholarships allocated by the school's scheme to Holt, with the 20 for other parts of the county, should form a connection between this school and the county scheme. At King's Lynn, Mr. W. J. Lancaster is building a magnificent home for King Edward VII.'s Grammar School, and there is every prospect of a renewed life and brilliant future for this old school. The Lynn Technical School has been absorbed by the grammar school, at least so far as it was a day school. It will, however, continue to be used for evening classes, and there is a proposal to utilise the premises in the daytime for a pupil-teachers' centre. The King's Lynn High School for Girls has developed into a public school, now known as the West Norfolk and Lynn Girls' High School. New buildings, at a cost of £3,000, towards which the Norfolk Education Committee contributed £1,500, have been erected. The King and other members of the Royal Family take a personal interest in the Lynn schools. At Thetford, in 1888, a girls' grammar school was built and has flourished exceedingly. The boys' grammar school, which dates from 1566, has steadily kept up its utility and reputation. A scheme for the improvement of both of these Thetford schools, by the addition of laboratories and science rooms, has just been completed at a cost of about £2,000, of which sum £750 was provided by the Education Committee. The most striking development has, however, been the revival of the Hamond School at Swaffham. There was a very small foundation, which for al practical purposes was dead. The Wymondham Private Commercial School was closed, and the head-master, Mr. G. Harel was appointed at Swaffham. The head-master, backed up by a capable Board of Governors, with a little financial aid from the Education Committee and a good deal of local help, has developed a very fine school of over 80 boys. New buildings, with laboratories, workshop and gymnasium, have been secured. The splendid manner in which this Swaffham school has been re-established is one of the most hopeful and encouraging signs (see illustrations on pp. 483, 484).

The aid to secondary schools, apart from the grants for buildings and apparatus, during the last four years will be seen by the following table:—

Year.	Amount. £	s.	d.
1901	1,018	12	3
1902	1,053	2	0
1903	962	10	8
1904	1,003	4	3

When the revised regulations, now in force, are in full work, the expenditure in this branch of the Committee's operations will be increased.

F.—SCHOLARSHIP SCHEMES.

At the very commencement of their work, the Technical Education Committee determined to make their scholarship scheme a very strong feature of their policy. Throughout the whole time, Norfolk has been to the front in this matter, and very few counties have spent so large a portion of their income on scholarships. The scheme as originally formulated, provided for 50 junior scholarships and 18 senior scholarships. Guided by experience of the actual working, and after consultation with those whose experience was useful, modifications of the original regulations have from time to time been introduced. The number of senior scholarships was reduced to five, their value increased, and their tenure made three years instead of two. A new class of scholarship, the intermediate, was founded. Scholarships to meet the needs of special lines of work, such as science and art, agriculture and domestic economy were offered. This year the Education Committee decided to allocate 20 of the junior scholarships to boys and girls intending to become pupil-teachers. They also decided to offer a new class of scholarship, viz., the secondary school junior scholarship. The complete scheme now in force offers annually:—

Fifty junior scholarships, value £10 per annum, with allowances for travelling, dinners and incidentals, open only to children attending elementary schools in the county, and tenable for three years at secondary schools recognised by the Committee—awarded by special examination.

Ten intermediate scholarships, value £30 per annum, five reserved for junior scholars, five open to children of Norfolk residents, tenable for two years at secondary schools recognised by the Committee—awarded on results of Cambridge Local Examinations.

Five senior scholarships, value £65 per annum, open to children of Norfolk residents, tenable for three years at approved colleges —awarded on results of Cambridge Local Examinations.

Ten secondary school junior scholarships of the same value and on the same conditions as the junior scholarships, but open only to boys and girls who have attended secondary schools in the county and who intend to become pupil-teachers.

One science or art scholarship, value £65 per annum, open to evening school students (not to day scholars) tenable for three years at an approved technical or other college.

One domestic economy scholarship of £30 per annum, tenable for two years at the Norfolk and Norwich School of Cookery.

The agricultural scholarships and the minor prizes and scholarships for horticulture and poultry work are given by selection and not by competition, and hardly come within the scope of the scholarship scheme, but are rather adjuncts to the special aid given in those subjects. The cost of the scholarship scheme, excluding these items, works out as follows:—

	£	s.	d
1901	3,892	13	6
1902	3,557	10	6
1903	3,791	17	1
1904	3,756	19	5

Since the commencement of the scheme in 1891, the following scholarships have been awarded:—

Class.	Number.
Junior	589
Intermediate	108
Senior	114
Science or Art	13
Domestic Economy	1
Agriculture	6

It is interesting to see how far the idea of the educational ladder is carried out. The scheme is designed to assist the pupil to work a way from the elementary school to the college or university. Of course, it is only a few of those who, though able to obtain junior scholarships, find it possible to rise to the highest point. In some cases, parents could not spare their children's possible earnings after 15 or 16 years of age. Taking the last five years as a fair test, and there has been time to allow of the system being thoroughly understood and fully worked, I find that, out of 25 senior scholarships, 21 went to holders of intermediate scholarships, inclusive of ten to former holders of junior scholarships. That is to say, 40 per cent. of the senior scholarships were taken by pupils who came up from the elementary schools through the junior and then the intermediate scholarships to the college. When it is remembered that the Committee have provided 250 junior scholarships during this same period of five years, it will be seen that four per cent. of the children who take junior scholarships afterwards take senior scholarships, and eventually reach the top of the educational ladder. The scholarship scheme has worked well and is a great credit to the county. A glance through the list of scholarship holders shows that the scheme has been thoroughly appreciated by the primary teachers, as a fair percentage of the

scholarships has been taken by their own children. It also shows that, in some districts, the conditions have been thoroughly grasped; for year after year the same district, and sometimes the same family, comes out successful. Most of the scholarships have been held at secondary schools within the county—a two-fold benefit, since it has helped both schools and scholars.

G.—THE TRAINING OF TEACHERS.

One of the most important duties laid upon Local Education Authorities is that of providing for the education and training of teachers. This is defined by the Education Act of 1902 as higher education. Concurrently with the formation of the new Education Committees, the Board of Education issued revised Regulations for the training of pupil-teachers and students in training colleges. These Regulations, which will ultimately introduce wide and far-reaching changes in the system, were the result of the experience and discussion of many years. Under them, the development of the teacher is to pass through three stages. There will be the initial or pupil stage, during which the child intending to become a pupil-teacher must receive some kind of higher education. This is to be followed by the pupil-teacher stage, in which the higher education will be continued and combined with practical training in the every-day work of an elementary school. Finally will come the "student" or college stage, when the higher education will be completed in conjunction with professional training in the science and art of teaching. The above will be the normal course of training for the teaching profession—there will be other subsidiary methods of entering the profession which need not be mentioned. The age at which students can become pupil-teachers is raised and the apprenticeship shortened in proportion to the amount of higher education received by the pupil. The secondary schools are to be largely used, where possible, for the higher education of pupil-teachers, and, in many cases, the university minor examinations will be used as tests. These Regulations have given rise to a large amount of discussion throughout the country. Generally speaking, they have been favourably received and the new Authorities have endeavoured to loyally carry them out.

The problem in Norfolk was peculiarly difficult. Under the Local Education Authority there are about 500 primary schools—the exact figures are 563 departments under 270 head-masters and 293 head-mistresses—with an average attendance of 46,399 children. The total teaching staff comprise 706 certificated teachers, 277

assistants (Articles 50-52, ex-pupil teachers), about 283 pupil-teachers and 454 supplementary teachers (Article 68). In round numbers, the total staff reaches about 1,720 teachers. As in most of the other counties, there is a very large proportion of women teachers, somewhere between six or seven women to one man. Taking Mr. Rankin's allowance for "wastage" in the teaching staff, it was calculated that Norfolk, to keep up its share in the national supply, should educate and train about 100 teachers per year, and that 15 to 20 of these should be men and the remainder women. This, with an average apprenticeship of three years, would mean a staff of 300 pupil-teachers. I have seen the calculations of an expert which tend to show that a less number of pupil-teachers may possibly keep up the supply. There was also the further problem of helping the various grades of assistant-teachers to improve their professional status. In addition to all this, the question of training colleges had to be considered. Altogether, it formed a rather tough piece of work for a newly-formed body, with plenty of other things on hand.

The whole subject has received a great deal of attention from the Education Committee. At one of the earliest meetings a special sub-committee was appointed to deal with it. Much work has been done, and the Education Committee, as a whole, have cordially accepted the various reports and proposals submitted to them. It has been decided to attempt to carry out the Regulations in the most loyal spirit. At the same time it was fully recognised that to do this meant the expenditure of a great deal of money, and that considerable time must elapse before any scheme which covered the whole county could be organised. It was put clearly before the Committee that it would be necessary to spend at least £3,000 a year if Norfolk was to deal at all adequately with the subject. In Norfolk, the question is largely a woman's question, as the bulk of the pupil-teachers are, and probably always will be, women; there are only 39 boy pupil-teachers in the county. It was also clearly seen that the proper working and ultimate success of the scheme depended upon a proper and adequate supply of secondary schools for girls, as well as for boys. In this, as in other branches of education, we are passing through a transition period. While the new scheme was being discussed, it was absolutely necessary to see that something was done for the existing pupil-teachers then in the employment of the Committee, and also to take steps to keep up the supply. The immediate work to be done was, therefore, to devise a temporary scheme to bridge over this transition period, and, at the same time, to prepare for the full and final adoption of the Regulations of the Board of Education.

Arrangements were made to send the county pupil-teachers from districts adjacent to Norwich and Yarmouth to the excellent pupil-teacher centres in those county boroughs. The pupil-teachers in the remaining portions of the county were placed in connection with Mr. Ayres' correspondence classes, and proper schemes of study were arranged for them, this work being done under the supervision and with the co-operation of the head-teachers of the various schools. It was evident that it was not feasible to take the existing pupil-teachers to the secondary schools. These last-named schools were not ready to receive them, while the pupil-teachers were preparing for the King's Scholarship Examination and would not have been able to take up the regular secondary school work which is based upon the university minor examinations. The method adopted has answered well; at all events, it is proving of great help to the pupil-teachers. The reports received from Mr. Ayres are, on the whole, satisfactory, and it was probably the best thing that could be done under the very difficult circumstances. Efforts were also made to improve the supply, and this year 125 candidates have been engaged. It has been clearly demonstrated that eventually there will be no dearth of candidates for the honourable profession of teaching.

With a view to the complete adoption of the Regulations and the utilisation of the secondary schools, 20 of the junior scholarships were assigned for pupils intending to become pupil-teachers. For the same purpose, ten new secondary school scholarships were founded, as has already been pointed out. Children now attending secondary schools have also been encouraged in other ways to adopt the teaching profession. At the beginning of 1905, there will be 50 or 60 pupils, scholarship holders and others, attending the secondary schools who will eventually become pupil-teachers. The secondary school authorities have been in communication with the Committee, and, in all cases, they have promised to cordially co-operate in carrying out the scheme. The formation of a pupil-teacher centre at King's Lynn is under discussion, and one or two of the secondary schools are quite prepared to definitely arrange for the accommodation of pupil-teachers. Early in 1905, it is hoped that something definite in this direction will be done. It will thus be seen that a beginning has been made and that the course adopted is one likely to lead to ultimate success. This is better than rushing into crude experiments which might have led to failure.

With a view to encouraging assistant-teachers to improve their professional status, they have been allowed to join the correspondence classes, and the Committee have agreed to pay the fees in the event of the student passing the King's Scholarship or Certificate Examination.

THE GRAMMAR SCHOOL, SWAFFHAM (SCHOOL HOUSE). (*See page* 477).

THE GRAMMAR SCHOOL, SWAFFHAM (SCHOOL BUILDINGS AT REAR OF SCHOOL HOUSE). (*See page* 477.)

In the matter of training colleges, it was clear that the financial resources of the county would be inadequate to provide such institutions for its sole use. The Educational Authorities of the Eastern Counties, both counties and boroughs, have formed a Joint Committee to deal with this important question. A scheme is in preparation and will shortly be submitted to the various Authorities for their approval. Norfolk has cordially accepted the idea, and has promised financial and other support, provided the scheme, when worked out, is at all reasonable. Two representatives have been appointed by the Committee. The Committee have also approved of the proposal to establish a scholarship scheme, auxiliary to the King's Scholarships, for the purpose of aiding the cleverest and most suitable of the pupil-teachers and ex-pupil-teachers of the county of Norfolk. This will naturally have to follow the adoption of the Joint Committee's scheme of training colleges for the Eastern Counties.

In concluding this section, I must say a few words about the past work of the Technical Education Committee with respect to teachers. At the very commencement of their work, 13 or 14 years ago, the Committee arranged a scheme of aid to teachers. They had two objects in view:—first, to provide a staff of competent men and women for evening class work; and, secondly, to stimulate and improve the teaching in elementary schools. The aid was given in four ways—(*a*) science classes for teachers, (*b*) instruction in manual training, (*c*) instruction in art, (*d*) instruction in cookery and domestic science. Courses of extension lectures were given on Saturdays at suitable centres, followed by examinations, on the results of which certificates, enabling the holders to conduct classes in the various subjects, were granted. Dr. Kimmins, now chief inspector of education to the London County Council, Mr. T. B. Wood, M.A. (Cambridge Board of Agricultural Studies), Mr. T. Easterman, M.A., Mr. H. de Haviland, M.A., Mr. R. H. Adie, M.A., with other Cambridge men, dealt with the sciences; Mr. G. Ricks, B.Sc., with the aid of trained London teachers, gave the instruction in manual training; the Norwich School of Art supplied the art instruction; and the Norfolk and Norwich School of Cookery was utilised for domestic science. The courses of lectures were supplemented, in the case of the best students, by small scholarships, tenable at Cambridge during the summer holidays. This work has been pursued without interruption up to the present time, and the Education Committee have decided to continue it. Of course when the scheme for the training of teachers is fully developed it will naturally not be necessary to adhere to this system of aid; but it is not intended to relinquish

it for some years. The operations have been of great service; without them, the evening class work would have suffered. A great number of teachers have qualified and now hold diplomas:—

Subjects.	Teachers.
Carpentry and Drawing	49
Agricultural Chemistry	59
Botany	34
Physics	15

Many teachers have also obtained art certificates. In the first three years of the work, the annual cost averaged £1,000, but gradually the amount has decreased, and during the last three years the figures were:—

Year.	Amount.
1901	£202 10 0
1902	334 3 4
1903	251 6 11

H.—FINANCE.

The funds at the disposal of the Education Committee for the purposes of higher education are as follow:—

(1) The annual grant under the Local Taxation (Customs and Excise) Act, 1890, popularly known as "the Whiskey Money";

(2) The Board of Education grants for schools and classes;

(3) Miscellaneous receipts, such as class fees and income from sales of publications;

(4) The rate for higher education under the Education Act, 1902.

The above are the sources of the *annual* revenue.

For *capital* purposes there are:—

(1) The unexpended balances of the Customs and Excise grants of previous years, now handed over by the Technical Education Committee;

(2) Any loans which may be raised for purposes of higher education.

Revenue.

The following table shows the amounts derived from the various sources during the last four years:—

	1901. £ s. d.	1902. £ s. d.	1903. £ s. d.	1904. £ s. d.
Customs and Excise Grants	11,578 12 5	10,910 18 2	10,095 4 9	10,380 5 6
Board of Education Grants	654 13 9	809 19 11	1,982 10 6	1,889 17 1
Miscellaneous	43 2 5	32 17 3	24 18 7	74 16 11
Rates	—	—	—	—
Totals	£12,276 8 7	£11,753 15 4	£12,102 13 10	£12,344 19 6

The grants under the Local Taxation (Customs and Excise) Act, 1890, do not call for any comment. The grants made by the Board of Education are earned by the schools and classes and are devoted to their use. In the case of the secondary schools, these grants are simply handed over to the school authorities. I have, therefore, not included them in the items given. The miscellaneous receipts are too trifling to need notice. Up to the 31st March, 1904, no higher education rate had been levied. Since that date, a small rate has been sanctioned. By the Education Act of 1902, the higher education rate is limited to twopence in the pound in counties. The Local Education Authority, however, have power to ask the Local Government Board to allow them to levy a rate in excess of twopence in the pound. A penny rate, on the county rate basis of 1904, will produce £5,798 1s.; therefore, the revenue from the higher education rate may reach £11,596 2s. The following Urban District Councils have power to raise a higher education rate of one penny in the pound, in addition to the twopenny rate leviable by the County Council :—

Name of Urban District Council.	Population in 1901.		Value of 1d. rate on county rate basis. £
Cromer	3,781	...	153
Downham	3,745	...	44
Diss	2,472	...	53
East Dereham	5,545	...	54
King's Lynn	20,288	...	341
Hunstanton	1,893	...	69
North Walsham	3,781	...	58
Sheringham	2,359	...	66
Swaffham	3,371	...	53
Thetford	4,613	...	75
Walsoken	3,250	...	40
Wells	2,494	...	33

Should any of these Urban District Councils utilise their rating powers, the money thus raised will very properly be applied to education for their own districts.

In 1891, the County Council of Norfolk decided to use the whole of the Customs and Excise grants for purposes of education—a decision which no one has had cause to regret. In the early days of the work, the whole of the money was not expended; the balances were carried forward from year to year and finally transferred to the existing Education Committee. These unexpended balances have, of late years, reached an aggregate of between £7,000 and £8,000 (on the 31st March, 1904, the total of the balances was £8,056 17s. 4d.). The Education Committee

have practically decided that this sum shall be used eventually as building grants for secondary schools, and it is intended to devote it to districts which have, as yet, received no building grants. The County Council have power to raise loans on the security of the education rates—*i.e.*, they may borrow for building purposes; but if they do this, a portion of the rate must be set aside to pay interest and to repay the loan. Of course, such a procedure would reduce the annual revenue for maintenance purposes.

I have already given details of the principal items of expenditure in dealing with the various branches of work. The only large item not yet mentioned is the cost of the administrative establishment for higher education. This, last year, was £805 4s. 1d., but the Committee will be fortunate if they can keep it below £900 a year. Apart from building grants, which must be looked upon as capital expenditure and which have been made out of the unexpended balances, the total expenditure during the last four years was:—

	£	s.	d.
1901	11,360	12	5
1902	10,493	6	3
1903	12,563	3	4
1904	11,556	12	2

Taking one year with another, it will be seen that, during the last four years, the revenue and expenditure have been practically equal, each amounting, in round figures, to about £12,000. In other words, the whole of the money derived from the Customs and Excise grant, and the Board of Education grants, is now allocated to work already undertaken by the Education Committee. It is obvious, therefore, that all new work will have to be paid for out of the rates. I hope I have made it clear, in the preceding parts of this article, that there is very little of the work, transferred by the Technical Education Committee to the Education Committee, that can, with reason or justice, be abandoned. I have gone very carefully into this matter, more than once, and I have failed to detect operations concerning which any very large reductions can be made. The principal future developments which the Education Committee have sanctioned, or have under consideration, are (*a*) the training of teachers, (*b*) training colleges, (*c*) provision and maintenance of secondary schools. Assuming that the Education Committee will continue the work already begun, and will carry out the new work successfuly, it may be asked—what is likeiy to be the future total expenditure on higher education, when the whole of the schemes are in full work, say in five or ten years? Using the experience of

past years, and data supplied to the Committee, I have calculated the future normal expenditure and embodied it in the following table :—

Probable Normal Annual Expenditure.

(HIGHER EDUCATION ONLY.)

	£	s.	d.
(1) Evening schools and classes	4,000	0	0
(2) Agriculture	1,500	0	0
(3) Domestic science	500	0	0
(4) Sanitary science and health	300	0	0
(5) Existing secondary schools	1,800	0	0
(6) Scholarships	4,000	0	0
(7) Establishment	900	0	0
Total (for work already sanctioned) ...	£13,000	0	0
(8) Training of teachers	3,000	0	0
(9) Training colleges	500	0	0
(10) Provision and maintenance of new secondary schools	5,000	0	0
(11) Contingencies and future new work	2,000	0	0
Total.....	£23,500	0	0

It has been shown that the revenue for higher education purposes will be about £23,500, including, of course, a county rate of twopence in the £. It is clear, therefore, that there is ample scope for the carrying out of the schemes already discussed by the Committee, and that a margin will be left for future developments.

I.—GENERAL CONSIDERATIONS.

In concluding this general survey, I hope I may be allowed to testify to the energy and zeal with which the Education Committee as a whole have devoted themselves to their multifarious duties. I am sure that no body could have worked together more harmoniously than the members of the Higher Education Sub-Committee. As Mr. Lee Warner has said, the devotion of men and women to unpaid work in our counties is one of the most gratifying features of modern English life. Perhaps the characteristic note of the action of the Education Committee has been—caution. Although I have not been able to lay before my readers any very startling or revolutionary proposals, I do claim to have shown that the transition period has been fairly well bridged over. When taking

up new ideas and new duties, the tendency is, very often, to cause the old work to be despised or neglected and to devote all the energy to the fresh and new fields. At all events, we have not made this mistake in Norfolk. The outlines of a definite and coherent policy in matters relating to higher education have been laid down. The policy may, in some parts, be crude, and it may need a great deal of elaboration in details; but it has been designed to meet the needs of the county, and, at the same time, to fit in with national policy as formulated by the Board of Education.

With regard to the future, I should like to express my own personal opinion upon a few points. I regret that the Act of 1902 has differentiated between higher and primary education. I am of opinion that the creation of a separate rate for the purposes of higher education was an error. It has given rise to a vague idea that, while it is the absolute duty of Local Education Authorities to attend to primary education, higher education is something with which they may or may not deal. It has tended also to separate primary and higher education, when what was needed was real co-ordination. It has caused Education Committees to duplicate staffs and to work on two distinct lines rather than to treat education as one concrete whole. Higher education is equally as necessary as primary education, and all education should be on one basis. I hope there will be only one rate for educational purposes in the near future, and that free from all limitations. The Board of Education have revised their Codes and Regulations in a truly liberal spirit. The able prefatory memoranda by Mr. Morant have deserved and received almost universal approbation. At the same time I think the financial aid offered has not always been equal to the very high ideals at which we have been asked to aim. Take, for example, the revised scheme of grants for secondary schools. It will not be of very great use to our small country secondary schools because, practically, it allows nothing for children under twelve years of age. Surely a grant equivalent to what is paid for children in primary schools should have been allowed. The small endowments which have been used in the past for primary education, and I believe they amount to about £2,000 a year in Norfolk, should have been used to link the primary to the secondary schools and not allowed to become absorbed, as they are now, in the relief of the rates. The Board of Education have shown a disposition to listen to the suggestions of the various Local Education Authorities, and to make alterations when just reasons have been submitted. I hope, therefore, the Local Education Authorities will continue to press the various points which still need amendment.

The method of working through sub-committees has drawbacks as well as advantages. The detail work has been very thoroughly done. At the same time, the system has rather tended to a separation between primary and higher education and to the idea of these departments being distinct, instead of parts of one whole. It has also tended, sometimes, to make the meeting of the whole Education Committee merely a registration court for what the Sub-Committees have decided, and occasionally there has been insufficient discussion of questions of general principles and policy. The Norfolk newspapers, by their excellent reports of the meetings, have helped the work of the Education Committee enormously. I think, however, we have, perhaps, been a little too sparing in the matter of printing and circulating important documents and reports. With more propaganda of this kind, combined with the help of the public press, we should probably have seen the development of a larger body of sound public opinion on educational questions. Education Committees, after all, are public servants, and the more clearly the public recognise that the work is being done on sound lines, the less difficult will the business of these Committees become.

The work already done by the Education Committee for Norfolk may be looked upon as preliminary. The ground has been surveyed, cleared, and staked out. A great deal of the future work will be administrative in character. The Committee are now in a position to utilise the expert knowledge and administrative ability of its able staff, from the chief secretary downwards, to the fullest extent. The work of the evening schools and classes should be further developed, more completely organised, and placed upon a permanent basis. I am sure no one will desire to lessen the amount of money and time devoted to agriculture, sanitary science, domestic science, and the other miscellaneous work. Nor will any one wish to injure in any way the magnificent scholarship scheme. The three things which now stand out prominently and await further treatment are the training of teachers, training colleges, and secondary schools. With regard to the training of teachers, its complete solution depends upon the provision of an adequate number of secondary schools. Meanwhile, we shall have to continue on the lines already indicated. The Education Committee will, I have no doubt, cordially co-operate in the Eastern Counties scheme for training colleges, when it is fully developed.

The most pressing work before the Committee at present is the provision of additional secondary schools. The Committee have already determined to place the selected existing secondary schools

in a firm and secure position, and the directory now in force provides for this. The arrangement with contiguous Local Education Authorities for the use of their secondary schools by adjacent districts in the county of Norfolk, on the basis of paying for services rendered, is merely a question of administration. When this is done, and when due allowance is made for the good private schools, there will remain, as the Committee's report shows, vast districts still untouched. In these districts there are large numbers of middle-class families, ranging from the tradesman and artisan to the farmer, for whom no adequate provision exists and for whom little or nothing has yet been done. It is in the interests of these people and their children, and of the children attending primary schools, and because I have seen, in my own town, the advantages of good secondary schools, rather than because of the use the secondary schools may be for pupil-teachers, that I feel the problem needs to be dealt with so urgently. The report of the Education Committee asked for local co-operation and contributions. I have been a strong advocate of the necessity for this local effort. But a liberal interpretation must be placed upon these terms. Where a district is ready to raise a penny rate of its own, or to make equivalent contributions—and I believe that Diss is ready—where the best and most suitable men and women in the district are prepared to act as governors and to co-operate with the county in developing and carrying on the schools; then that district fulfils the conditions and ought to be dealt with. If this question is fairly faced, the capital outlay is not a very terrifying thing. There is the unexpended balance of £7,000; and, when that is exhausted, a portion of the higher education rate can be hypothecated and loans raised. Cambridgeshire has already its county schools for both boys and girls. I am told the Isle of Ely has decided to provide three secondary schools for girls, in addition to aiding those for boys. West Suffolk is providing a secondary school for both boys and girls at Bury St. Edmunds. In none of these counties are the needs more pressing or the financial resources greater than in Norfolk.

Much more might be written upon this important subject; but I hope I have shown that the Norfolk proposals are both practical and urgent. I have taken pains to verify the facts and figures used in this article. For the opinions expressed, I accept the sole responsibility.

F. H. MILLINGTON.

IV.—NATURE-STUDY: ITS PROGRESS AND INTERPRETATION.

By Ethel A. M. Webb.

(*a*) NATURE-STUDY IN A LONDON HIGH SCHOOL.

For some time past, successful efforts have been made to bring the children of rural schools into touch with the wonders of the world around them; to give them an interest in their surroundings, capable of neutralising that stimulating effect, exercised on the imagination, by the unknown life of the nearest large town. But, as far as my own experience goes, and on the same principle, I suppose, as that expressed in the proverb:—"The aisiest cheer is the wan yo're not settin' in," town children are much more readily interested in Nature and Nature's ways than country children of the same class. In the manufacturing towns of Yorkshire and Lancashire the desire to learn things for the mere joy of knowing them is much more marked than in the South of England: when I taught biology under the Essex County Council it was no usual thing to hear such speeches as:—"No, no, my boys shan't waste their time learning botany and such nonsense, that won't get them their bread and butter"—or "If learning the like would give them a shilling more on to their wage, Miss, *I'd* see they went, right enough"—and the same spirit seemed to animate the children themselves: but in the North, an ordinary working-man or boy will walk all Saturday afternoon and night in order to verify the occurrence of some rare flower, or to study a flora different from the one in his immediate neighbourhood, and this although he knows that he must walk all Sunday evening and night in order to get back in time for his work on Monday morning. Questions as to the immediate utility of knowledge as a wage-raiser do not occur to the type of man who, after having worked all his life in an iron-foundry, and saved enough to barely live on, spends his old age in attending technical classes—generally in company with his own grandchildren. Such a case was known in Warrington, Lancashire, and when the man was questioned he would say:—"Yo' "see, I alus waänted tew knoäw a bit about"—Latin, chemistry, botany, or whatever subject was under discussion—"and noäw, "I've gotten t' leasure."

Among children, however, in all parts of the world, it is not difficult to arouse an interest in anything and everything that has life, although when the keeping of Nature Calendars was first begun among my pupils some curious results were obtained.

"What are we to put down?" the children asked.

"Whatever you notice about animals and plants in your walks."

Many said that they never went out except to and from school, and on being questioned as to what they saw then, some replied:—"Nothing," and the rest answered:—"Shops and people." After matters had been carefully explained, calendars were kept for a month before being given in. One was found to be a painstaking

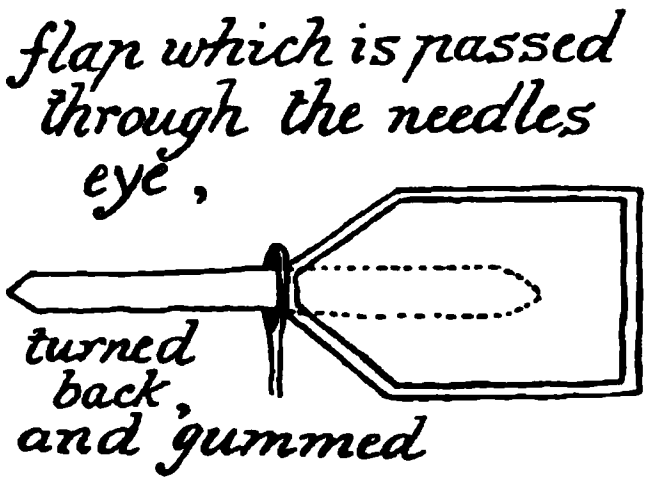


FIG. 1.—Flag label in course of construction: the dotted lines show the flap in position when turned back.

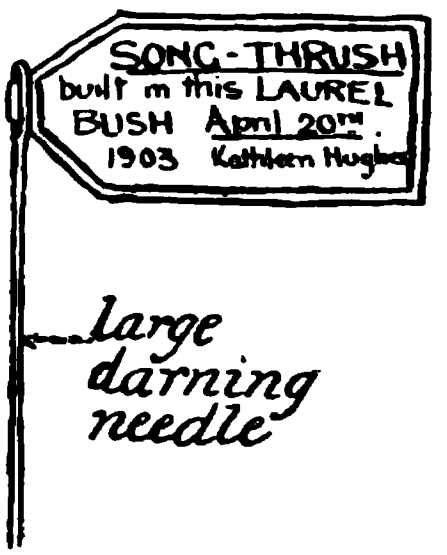


FIG. 2.—Flag label ready for insertion in the map.

record of the births, deaths and marriages occurring in the neighbourhood, while another bloodthirsty littie child of eight had kept an account of the various dog-fights and street-accidents she had witnessed or heard of! Even after her attention had been called to subject matter of a less sensational type, the bent of her mind might still be seen in such entries as the following:—

"*February 2nd*: I saw two sparrows fighting, one pecked the other till its feathers came out and it fell down DEAD."

I very much fear that the tragic dénouement belonged to the realms of imaginative literature rather than to the facts of natural history.

The keeping of Nature Calendars is done principally by the 1st and 2nd Forms: each child who cares to do so—for all nature-study work is purely voluntary—keeps a little book, and the most interesting facts recorded, for each month, are entered on a large wall sheet, together with the name of the child-recorder.

The distribution of animals and plants in the neighbourhood is noted by means of flag labels inserted in a map of the district. The map is preferably a raised one, modelled in plasticine. The way to make flag labels is shown in Figs. 1 and 2. Observational

lessons are also given, although there is no mention of nature-study in the time-table; yet a great deal can be done in ten minutes at the end of other lessons, and I believe this method to be the best to pursue, as it prevents formality and keeps the children's interest always fresh. The material is, as a rule, taken from things brought to school by the children themselves, and I have become quite accustomed to giving my morning lessons in company with a puppy-dog, a guinea-pig or a few white mice, while a fine specimen of an earthworm, presented to me at an inopportune moment, had to find a temporary resting place in my desk!

In the case of special records of plant and animal life, either wild or in captivity, the kind of work done by the children is shown in the two leaflets at the end of this article. It is important for the observed facts to be grouped round some central idea, and each piece of work should be complete in itself—although one exercise must lead naturally up to another. For instance, the next week's exercise following on "The Thistle Inn" might be, for one child, a collection or description of all the two-winged flies found during a week, and, for another, different kinds of spiders, bees or butterflies.

The observation of the habits of animals in temporary captivity necessitates keeping them under effective control, for even the most amiable of staffs objects to meeting a procession of toads on the staircase, or to finding blindworms hibernating in the book cupboard. A very good and cheap box for holding small animals has been made by a pupil at the school from a design of mine, and is described in the leaflet on the Blindworm.

These boxes have secured me a peaceful life when other means entirely failed to do so. The door of my Form-room would open after a hurried knock and a breathless page would say:—"If you please, Miss, would you mind coming? A lizard's dropped on Emily off the ceiling, and we can't catch it." Before the words had left his mouth he had fled to join the chase, and I would find him armed with a shovel, the cook with a poker and Emily in hysterics.

Collections are not encouraged except for some special purpose; and, in connection with museums in a school where costly glass-fronted cases are out of the question, even if they are considered advisable, I might mention that I have found my own plan of using glass-topped boxes, which slide into wooden frame-works such as are shown in Fig. 3 most useful, as either the whole framework can be taken down and easily carried into a Form-room, or individual boxes can be taken out with little expenditure of time or trouble. This plan has also one other

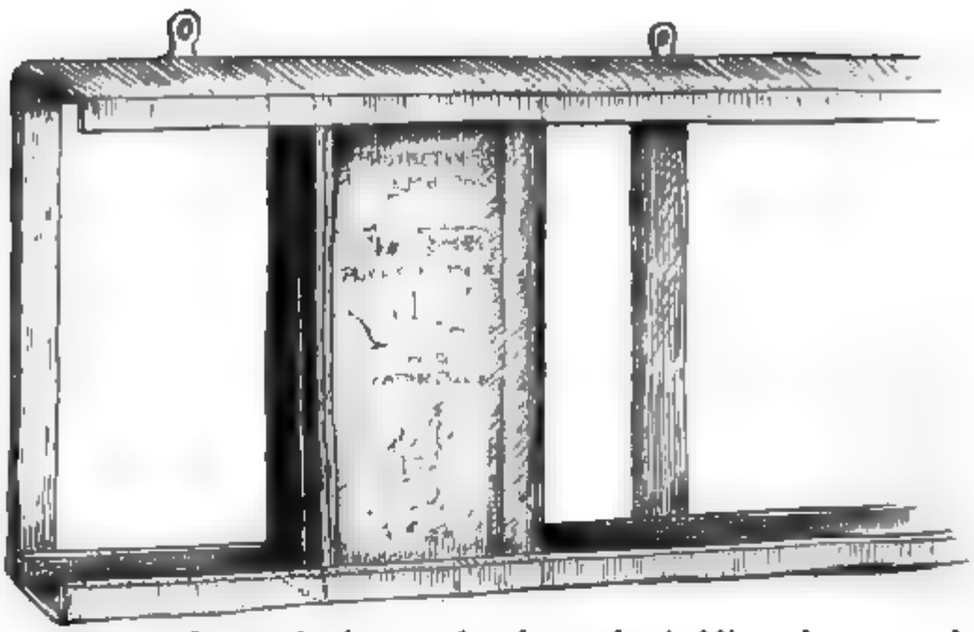


FIG. 3.—One end of a wooden frame for holding glass-topped boxes: one of the latter, containing mounted specimens, is shown in position.

advantage; fresh material can at any time be inserted without rearranging the whole collection, and the cost is merely nominal. A framework to hold eight boxes, each 10 × 6 × 3 inches, costs about 2s. 6d., and the boxes cost about 6½d. each.

Among the other means of nature-study already mentioned, school rambles take, of course, a prominent place. Here, again, it is important that some definite work should be undertaken in each ramble; for example "Seed distribution," "Opening buds," "Fertilisation of Flowers," or "The Inhabitants of some special pond."

It is an interesting fact that, at the recent Nature-Study Exhibition held in London, 1903, although many of the competing schools, as, for example, Bedale's, are surrounded by some of the most beautiful country in England, yet the Selborne Society's prize for the best account of a school excursion was won by a pupil whose rambles were well within a five-mile radius of a London High School.

(*b*) TYPICAL LEAFLETS.

Some fine morning, in summer or autumn, I want you to go out into the fields or lanes, or on to some piece of waste ground, and find a big thistle: and when you have chosen a plant, I want you to find out all you can about it, and about the insects and creatures that live on it, or visit it. You know that an "Inn" is a place where travellers find lodging and refreshment, and so I think we might call our plant "The Thistle Inn," and keep a kind of visitors' book, although the visitors themselves will not be able to write in their names—you must do that for them. It would be more interesting if you could get someone else to become the keeper of another "Inn" (some other kind of plant) and compare your visitors' lists. And just as some visitors at an Inn are permanent lodgers, and some come and go, you will find that your thistle shelters many creatures for the whole of their life, while others just call as they pass by.

FIG. 1.—Pollen basket on hind-leg of honey-bee (magnified).

First, you had better write a description of the "Inn"—the chief things you ought to notice are marked in the full-page drawing (see p. 499); then,

if I were you, I should visit the "Inn" as often as I could, and rule out the pages of a little book like this :—

VISITORS' LIST OF THE THISTLE INN.

Date and Hour of Visit.	Name of Visitor.	Description and Drawing.	Where Found.	Remarks.
Aug. 7th, 3 p.m.	Two Butterflies (*Cabbage whites*).	Jointed body, divided into three parts; jointed legs in three pairs (INSECT). Four wings covered with scales: there is a long spirally coiled tube-like proboscis, with which it sucks up honey.	On open flower head.	When they alighted, the wings were folded together over their backs, showing the under-sides. They came to get honey.
	Three *Honey-bees* (workers).	INSECT. Four *transparent* wings with very few veins. Licks up the honey with a pointed tongue-like structure. The hind legs have a flattened joint, the "bread-basket" (Fig. 1) which is covered with ridges and hairs, and on this the bee scrapes off the pollen which sticks to its other legs.	On open flower head.	The male bees are called "Drones"; the Queen honey-bee stays at home in the hive and lays eggs. The worker bees come to get honey and pollen.
	Drone-fly (*Eristalis tenax*).	INSECT. Two transparent wings. Closely resembles a honey-bee. It buzzes like a bee, when it is touched. Behind the wings, there are a pair of structures with knobs on the ends (called halteres, or balancers).	On flower head.	This is an example of a protective likeness to another insect; most animals will not touch it, although it is quite harmless: it has *no sting*.
	Two *yellow-tailed humble-bees*.	Something like the honey-bee, but much bigger, and more hairy, banded with black and yellow—antennæ have a sharp bend in them.	On flower head.	Spent ten minutes helping one to get honey. by parting the florets. Found that the honey was *outside* the corolla tubes of the florets, just above the fluffy white hairs (pappus).

THE THISTLE
FLOWER HEAD, made up of many florets
CABBAGE WHITE BUTTERFLY
YELLOW TAILED HUMBLE-BEE
INVOLUCRE of spiny bracts, protecting the florets
RIPE FRUITS, soon blown away, borne up by their feathery 'pappus', until they knock against some obstacle, then the fruit breaks off and drops to the ground
LEAF, much indented, each tooth ending in a spine; (protection against browsing animals

Date and Hour of Visit.	Name of Visitor.	Description and Drawing.	Where Found.	Remarks.
Permanent lodger.	*Spider* (*Linyphia triangularis*), *female*.	Greenish brown spotted with white: about as big as a house-fly. Web made of tangled threads with cross-threads above, and stay-threads meeting at a point below.	Web was stretched like a platform between the branches of the thistle; the spider stayed on its under surface.	If a fly escaped from the platform part of the web, and flew upwards, it bumped against the cross-threads above, and fell back on to the true web. The spider did not wind flies up in a sheet of silk, but carried them off in his jaws.
Aug. 8th, 4 p.m.	Three *cuckoo-spit* insects.		In the angles between the leaves and the stem above.	When touched they suddenly spring out of sight. The larvæ make a mass of frothy juice in which they live.
Permanent lodgers.	*Plant-bugs* in great numbers (*Monanthia cardui*—named after the thistle "Carduus," on which they are usually found).	INSECTS, some winged, some wingless: speckled with black and light grey, looking almost like tiny skeleton leaves.	Beneath and among the bracts of the involucre.	Apparently they eat the young seeds: many of the "seeding" heads had no fruits at the base, nothing but the fluffy part. Watched insect changing its skin: when it came out it was quite white.
	Brown winged bug.		Leaf.	
	Three yellow-tailed humble-bees.			
	Honey-bee.			
	Cabbage butterfly.			

Date and Hour of Visit.	Name of Visitor.	Description and Drawing.	Where Found.	Remarks.
Aug. 9th, 12 a.m., after a shower.	Numbers of small black beetles.		Amongst the florets.	They were covered with pollen.
	Numbers of small black flies.	INSECT. Covered with long velvety hairs.	Everywhere, but principally on the flower heads.	
	New kind of spider (*Phyllonethis lineata*), female.	With a white, very round abdomen, with markings like watered silk, pale yellow legs and thorax.	Stem.	
Aug. 10th, 6 p.m.	Hover fly (*Chrysotoxum sylvarum*).	INSECT. Much like a small wasp; has a swift darting flight, but sometimes seems to pause almost motionless in the air. Two transparent wings.	On flower head.	A second example of protective mimicry.
	Pupa of some kind.	About half-inch long, light brown, with reddish brown head.	On leaf; no cocoon.	Put it away in in a box to see what it would turn into.
	Ichneumon fly.	INSECT. Slender, black and very pointed abdomen, not really a fly, as it has four wings. It kept flirting its wing up and down.	Alighted for a few seconds only on a leaf.	Could not see it very well, as it stayed for such a short time.
	Two yellow-tailed humble bees.		Asleep on flower-head.	Allowed themselves to be freely handled.
	Red soldier beetle.	INSECT. Front wings hard and horny (wing-cases).	On flower-head.	Eating pollen.

I have filled in the names of some of the visitors who came to a London thistle in the four days during which I was one of the visitors. If you do not know what kind of a creature it is that you have found, you must collect it in a small bottle with a bit of glass tubing through the cork to let in air [Fig. 2], or you might use a cardboard box, such as those in which homœopathic medicines are sold. You should cut two holes as you see in the picture [Fig. 3]. When the first hole is just over the second, you can pop anything small into the box without taking off the lid, and a quick turn of the latter closes the opening. In the case of the bottle, very small

FIG. 2. Collecting bottle.

FIG. 3.—Collecting box.

creatures can be put in through the tube. When you have collected and found out for yourself all you can about your captives you must take them to someone who knows about such things and get him to tell you more.* But you ought, at least, to be able to tell for yourself to what great division of "Backboneless" animals they belong. If you feel along the back of a cat or a dog or of one of your schoolfellows, you will find a hard, jointed column; this is the back-bone, and the joints are called "vertebrae"; but most of the living things you will find on a thistle have no back-bone.

You may discover at the root, different kinds of

1 WORMS: these are soft-bodied, with ring-like divisions (segments) and have no "legs" or "jaws" (appendages). Then, under those leaves which lie flat on the ground you may find different kinds of

2 WOODLICE, whose relations are crabs and lobsters: like the worms, they have jointed bodies, but they have a horny

* After you have observed your captives, you can put them back on the thistle-plant.

covering, and have legs and jaws and feelers. The head is not very clearly distinct from the rest of the body. Probably you will also find

3 CENTIPEDES and

4 MILLIPEDES: both these have a distinct head, very numerous and similar divisions to their body, and short jointed legs. The centipedes have only one pair to each body-ring, while the millipedes have two pairs. Then, on the ground under the leaves, or on the plant itself, we may have different kinds of

5 SPIDERS: these have the head and middle part of the body *(thorax)* joined in one, and eight jointed legs, while the "tail" *(abdomen)* has no appendages. At the end of the tail you can see the little cluster of spinnerets, from which the silk comes.

Then last, but not least, among the creatures with segmented bodies, we have the

6 INSECTS themselves [Fig. 4]. In their case, the body is

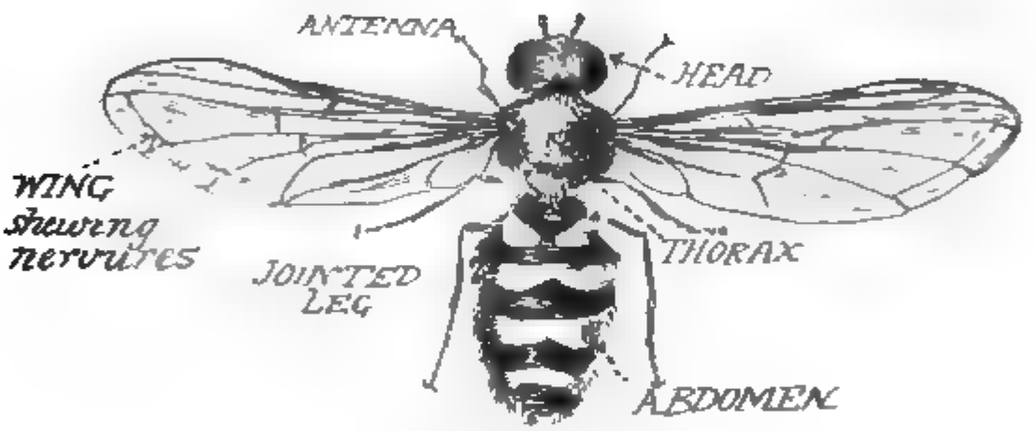


FIG. 4.—Typical insect (*Hover-fly*) showing the divisions of the body and the jointed appendages.

clearly cut up into three divisions (head, thorax and abdomen) they have wings, as a rule, and only three pairs of jointed legs. They always begin life by hatching from the egg as a caterpillar or grub (larva), quite unlike the insect when it is full grown, and in most cases this larva turns into a chrysalis (pupa), and the pupa in time becomes the perfect insect.

There is one division of insects without wings: to this belong **the Bristletails and Springtails.** To the next, with four straight wings, belong **Earwigs, Grasshoppers, Cockroaches, and Dragon-flies.** Then come the net-winged insects, like the **Caddis-flies, and Lace-wings.** We must not forget that many of the straight-winged insects have net-wings, too, but their grubs do not turn into distinct pupæ, and the wings do not, as a rule, fold up. We also have one division for **Plant-lice,** the **Cuckoo-spit Insects** and different kinds of **Land and Water Bugs,** like the water-measurer. Then we have the true **Flies** with two wings;

the **Butterflies and Moths** with four wings, covered with powdery scales of different beautiful colours; the **Beetles,** with the front pair of wings altered into sheaths ("wing-cases") to protect the second pair; the **Ants, Bees** and **Wasps,** with both larvæ and pupæ, and with four transparent wings with few veins in them; and, finally, we have the fringe-winged insects to which the different kind of **Thrips** belong. In what has been told you, the *wings* seem to be the most important part to notice, in deciding what kind of an insect we have found; but it is useful and interesting to examine the appendages used in eating, the "mouth-parts," as they are called. In the drawing [Fig. 5] you will see

FIG. 5.—Mouth parts of a typical insect (*Cockroach*): certain parts of the first Maxillæ form the coiled proboscis of the butterfly, while the "*Ligula*" forms the proboscis of the bee.

named the mouth-parts of a cockroach, but in the butterfly and the bee, and in many flies, you will find these altered in different ways for sucking up honey (butterfly), for licking (bee), for piercing the skin of other animals (horse-fly, gnat). In the butterfly the parts marked in Fig. 5 are joined and make a long tubular "proboscis," spirally coiled. In the bee, the middle parts of the ligula grow out into long tongue-like structure.

Try to decide to which of the above divisions the visitors in your list belong; but before you try to tell what kind of an insect you have, please be sure that it is an insect and not a centipede or a wood-louse.

Perhaps you may also find some kinds of

7 SLUGS AND SNAILS on your thistle. These have a soft, slimy body like the worms; but they are not jointed into body-rings,

and they have a shell, either outside them, if they are snails or worm-eating slugs, or under the loose skin, if they are ordinary slugs.

But there is something more important still than trying to find out what your visitors *are*, and that is, to notice what they *do*, to watch their habits, to see how and on what they feed, where they lay their eggs and to observe what these eggs hatch into. You might make up an advertisement like those in the daily papers.

THE THISTLE INN; near London, pleasantly situated on a hedge-bank, south aspect, fine view over an open grass field. SPECIAL ATTRACTIONS TO VISITORS: honey and pollen to be had from 5 a.m. till 7 p.m.; excellent shelters against cold and damp; fine seeds for gold-finches and others.

In short, you must not be content until you can tell, not only who comes but why each comer likes to visit

SOME STRANGE PETS.

Most of you, I suppose, keep pets of some kind—a kitten, or a canary, or, perhaps, it may be rabbits—and I expect you could give me a great deal of information about them; but as I cannot hear what you have to tell me, *I* am going to tell *you* about some pets of mine. You would never be able to guess what they were, and you could not possibly know how interesting they are unless you have kept them for yourselves. Perhaps some of you will, after you have read this.

My pets have one advantage over kittens and canaries—you have not to wait until a friend gives you one for your birthday, or till

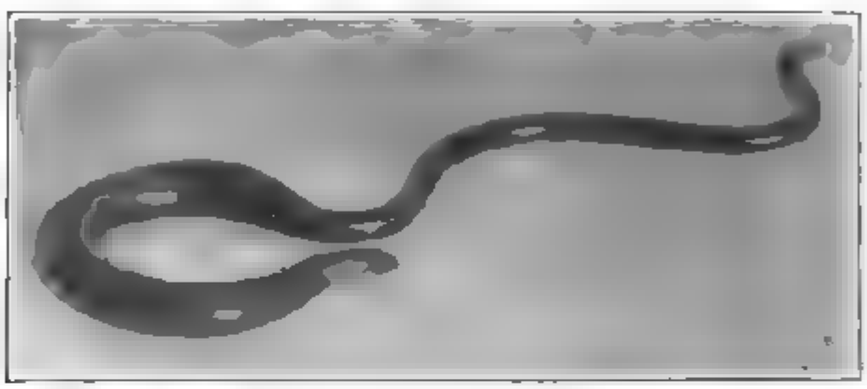


FIG 1.—Full-grown Blindworm.
From a photograph by W. M. Webb.)

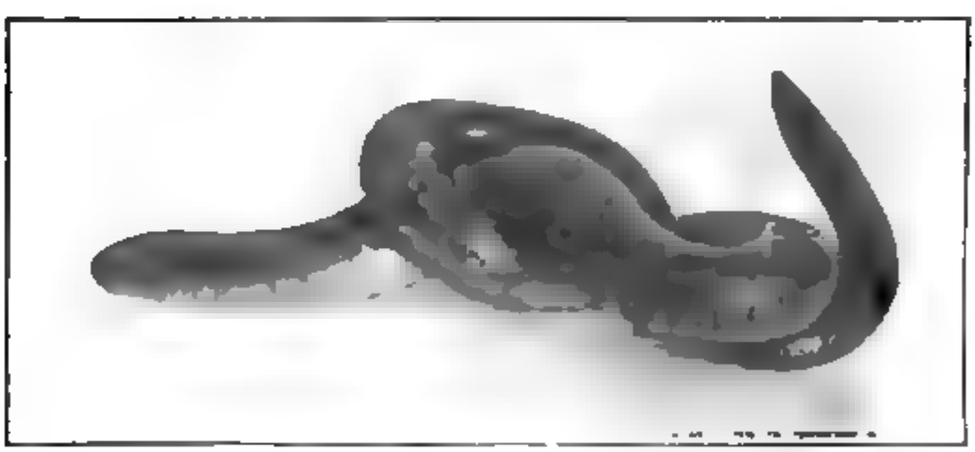


FIG 2.—A "Stumpy" Blindworm, which has lost its tail through some past injury.
(From a photograph by W. M. Webb.)

you have saved up enough money to buy one, because if you live in the country they are quite easy to find. If you turn over any piece of old board or stump of wood that you may happen to see on your walks abroad you may find one or two *Blindworms*. If you are not already acquainted with these animals, you must look at the picture (Fig. 1), because a name never tells

you very much, especially when the name itself is not a very good one. "Blindworm," "Slow-worm" and "Deaf-adder" are none of them very complimentary, and none of them at all descriptive, for the Blindworm is not blind, nor slow, nor deaf, nor is it a worm, nor an adder! It is not even a snake, although it looks very much like one. It is really a kind of lizard, with very tiny remains of legs hidden underneath the skin, and it is quite harmless and may be handled without the slightest fear on your part; but you must be careful not to nip or knock it, as its tail may come off. You often find stumpy Blindworms (Fig. 2) which have really lost part of their tails. The little brown lizard, that you find among the heather on commons, also sheds its tail when hurt or frightened. The reason for this is that, when the lizard is being pursued by a hungry bird or a snake, the last part of it to disappear into a place

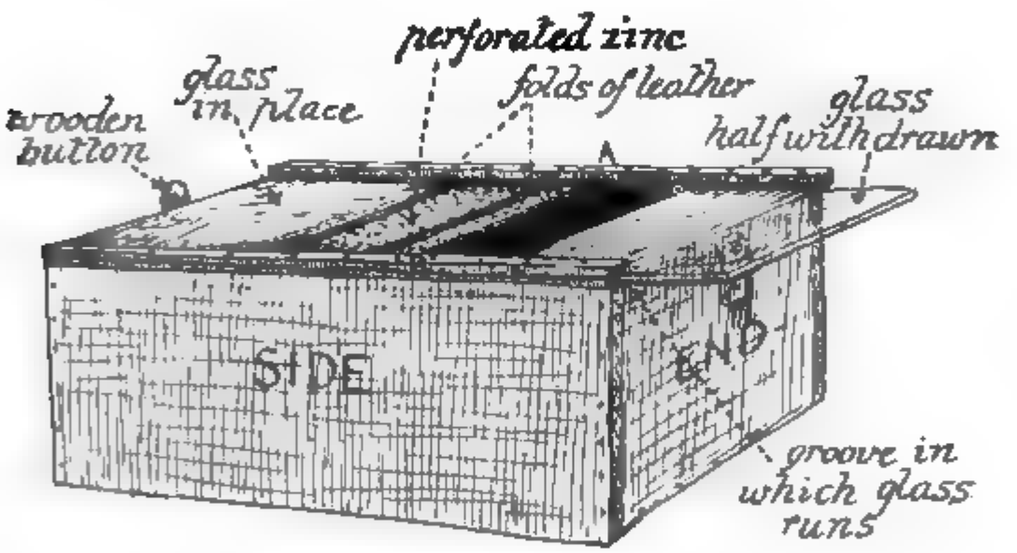


FIG. 3.—Box in which to keep small animals for observation.

of safety is the tail, so the latter is liable to be caught hold of, and lizards prefer, like Bo-peep's sheep, to get home and "leave their "tails behind them," rather than be gobbled up tail first. The loss is not so important as we might think, for, once at home, the lizard generally grows a new tail—sometimes two at once!

But if you catch a Blindworm you must have a house to keep it in, so I will describe a box that you can easily make yourself, which will hold them securely.

Across the top of a box made of ¾ inch wood, a piece of perforated zinc is nailed (Fig. 3), after first having folds of leather stitched on in the positions indicated in the diagram (see Fig. 4). Then, along the tops of the two sides marked A and B, over the zinc, nail strips of wood about half as wide as the thickness of the box-side and flush with its outer edges (Fig. 5). On the tops of these first

strips, second strips, as wide as the sides, are fastened in position. This will make a groove on either side into which a piece of glass slips at either end; the inner edge of the glass goes under the flap of leather and the outer edge is kept pushed in by a wooden button. You must fill the box with damp moss, and, if you feed them properly, the Blindworms will live quite happily and will soon let you play with them as you like, and feed from your hands. Slugs and worms form their chief food, and the Blindworm does not in the least object, as some animals do, to letting you watch him at his meals. He catches hold of a worm as near the end as possible, not in the middle like frogs and toads.

If you are fortunate you may see a Blindworm changing its skin. I have never actually seen this, but I have often found cast-off suits of clothes left in the box twisted in and out amongst the moss. These have every scale perfect in form, but the colours are on the body beneath the skin and look very dull just before, and very bright and clear just after, the skin is cast. The Blindworm crawls out of his skin and leaves it behind him turned inside out. Frogs and toads change their skins, too, but they do not think it right to waste good material or to leave their personal belongings lying untidily about, so they eat up their skins as fast as they pull them off.

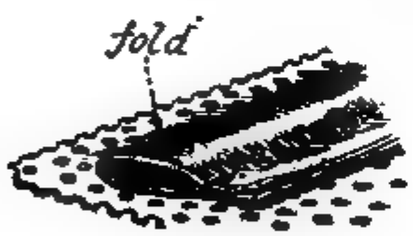


FIG. 4.—Flap of leather stitched on the perforated zinc.

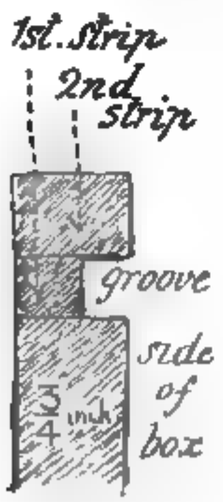


FIG 5.—Section of box-side showing the groove in which the glass runs.

The colours of Blindworms vary very much, and, as a rule, match their surroundings almost perfectly, so that, unless you catch one at home under a stone or stump, they are very difficult to find, especially as they usually move about at dusk to feed. Some Blindworms are bright copper-colour with a very distinct black line down the back, others are bronze-coloured and some are almost silvery.

If you are *very* fortunate one of your Blindworms may lay some eggs. These are not like birds' eggs, with a hard brittle shell, but they have a thin skin outside, and the baby Blindworms can be plainly seen inside when the eggs are laid. So, you see, a Blindworm need not make a nest and spend a long time hatching her eggs as a bird must. The common grass-snake lays eggs nearly as big as that of a thrush, but the eggs have a covering like soft cream-coloured

leather and take some time to hatch. So their mothers often lay them in clusters in the hot-beds where melons and cucumbers grow, where they will be warm and where the little ones will find plenty of food ready to be eaten. But we must go back to our

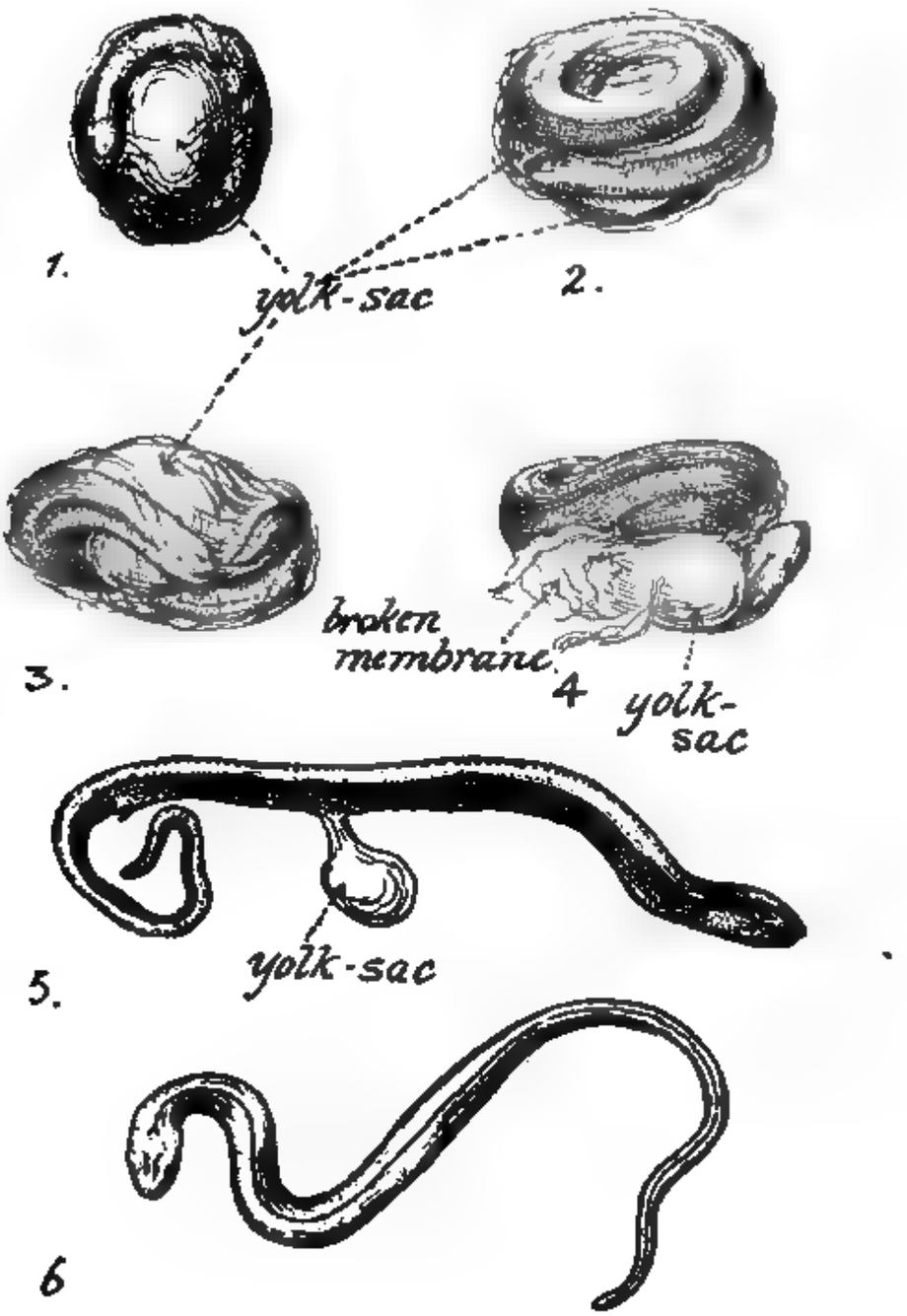


FIG. 6.—Development of the Blindworm.

1 and 2.—Eggs just laid (October), showing the baby Blindworms coiled round the yolk-sac and surrounded by a thin, transparent skin. 3.—Blindworm beginning to wriggle inside the egg-skin. 4.—The latter has been broken through. 5.—Very young Blindworm with the yolk-sac still attached, but free from the egg-skin. 6.—The yolk-sac has been completely absorbed.

baby Blindworms, which we have left shut up inside the outer egg-skin, I suppose I must say, instead of egg-shell. If you look at the picture [Fig. 6: 1 and 2] you will see that the little one is coiled round a ball (which is yellow): that is the "yolk-sac," and holds the

food for the baby. Very soon the latter begins to wriggle inside the skin [Fig. 6: 3], and at last wriggles himself right *outside* the skin [Fig. 6: 4], but at first the yolk-sac is attached [Fig. 6: 5], so the little Blindworm carries a kind of feeding-bottle with him for a little while, till all the food is used up and the yolk-sac disappears entirely.

In the cold weather, when it would be impossible for the Blindworm to get food in its wild state, you will find that you need not look for worms, or slugs either, as your pets will have gone to sleep for the winter: but you must have plenty ready for them when the first fine days of spring come, as the Blindworms will be very hungry after their long rest.

And now, perhaps, I have told you enough to show you that pets, even if strange, may still be interesting, and that animals like the Blindworm, which cause a great deal of needless terror, may be really quite harmless, so I hope that you, at least, will never be frightened at the "deaf-adder" or despise even a "worm."

V.—AGRICULTURAL EDUCATION.

A JOINT COUNCIL FOR THE THREE RIDINGS OF YORKSHIRE.

I.—GENERAL SCHEME.

The following is the full text of the scheme for establishing the Yorkshire Council for Agricultural Education which has received the approval of the Board of Education. The scheme represents the most important combination of Local Education Authorities for a special department of educational work which has yet been effected in England, and which the Education Act, 1902, has rendered possible.

Whereas by Section 17 of the Education Act, 1902 (hereinafter referred to as "the Act"), it is amongst other things enacted that any Council having powers under the Act shall establish an Education Committee or Education Committees constituted in accordance with a scheme made by the Council and approved by the Board of Education, and that any such scheme may for all or any purposes of the Act provide for the constitution of a Joint Education Committee for any area formed by a combination of counties, boroughs or urban districts, or of parts thereof;

And whereas the Council of the county of the East Riding of Yorkshire made a scheme for the establishment of an Education Committee for the purpose of the Act on the 26th day of January, 1903, and the said scheme was approved by the Board of Education on the 19th March, 1903;

And whereas the Council of the county of the North Riding of Yorkshire made a scheme for the establishment of an Education Committee for the purpose of the Act on the 28th day of January, 1903, and the said scheme was approved by the Board of Education on the 29th May, 1903;

And whereas the Council of the county of the West Riding of Yorkshire made a scheme for the establishment of an Education Committee for the purpose of the Act on the 13th day of May, 1903, and the said scheme was approved by the Board of Education on the 20th June, 1903;

And whereas the Councils of the said counties have agreed to establish a Joint Education Committee for the area formed by a combination of the administrative counties of the said Ridings for the purpose of "education other than elementary" in agriculture and horticulture and matters pertaining thereto, it is hereby provided as follows :—

(1) There shall be established a Joint Education Committee for the Councils of the counties of the East, North and West Ridings of Yorkshire, to be called "The Yorkshire Council for Agricultural Education."

(2) The Yorkshire Council for Agricultural Education, hereinafter referred to as the Agricultural Council, shall consist of 36 members (herein called "representative members"), to be elected by the said respective County Councils from among their own members in manner herein provided, and not less than seven nor more than twelve other members, including at least one woman (herein called "added members"), being persons who at the time of their election are not members of the said County Councils.

(3) Unless the said County Councils shall otherwise agree, each of the said County Councils shall appoint one-third of the "representative members."

(4) The "representative members" to be elected by each of the said County Councils shall include at least three members of the Education Committee of such Council.

(5) The "added members" shall be appointed annually by the said County Councils, in accordance with regulations made by the Councils from time to time for the purpose.

(6) In selecting the members of the Agricultural Council, care shall be taken that the following types and kinds of education are always represented either among the "representative members" or the "added members," viz.: university education; secondary education for boys and girls; technical education, having special regard to the requirements of agriculture; elementary education.

(7) Any vacancy arising on the Agricultural Council owing to death, resignation or otherwise shall, as early as practicable, be filled up, and in the case of a "representative member," by the Council by whom the vacated member had been appointed.

(8) The "representative members" to be appointed by each County Council shall be appointed by such County Council annually at the meeting at which the Chairman of the County Council is ordinarily elected, and shall hold office until their successors are appointed, provided that in the year of the triennial election of

County Councillors all the members of the Council shall go out of office on the ordinary day of retirement of County Councillors; and provided also that the members of the Agricultural Council first to be appointed shall be appointed as soon as conveniently may be after the approval of this scheme by the Board of Education.

(9) The matters to stand referred to the Agricultural Council shall be such matters relating to the exercise by the said Councils of their powers under the Act relating to agricultural and horticultural education (other than elementary) and matters pertaining thereto as the said Councils shall by agreement from time to time determine, and, save as hereinafter provided, such matters shall not stand referred to the Committees established by the schemes for the establishment of Education Committees made by the said Councils and approved by the Board of Education as hereinbefore recited.

(10) In the event of any of the said Councils giving to the remaining Councils at least twelve months' previous notice to dissolve the combination on the 31st day of March in any year, the Agricultural Council shall be dissolved at the expiration of such notice, and, from and after the date of the dissolution, the matters relating to the exercise by each of the said Councils of their respective powers under the Act, which under this scheme or any agreement made thereunder would have stood referred to the Agricultural Council, shall, subject to the provisions of any future scheme made and approved in accordance with the provisions of the Act, thenceforth stand referred in the case of each Council to the Committee established under the hereinbefore mentioned scheme for the establishment of an Education Committee for that Council;

Provided nevertheless that, if the two remaining Councils so determine, the combination shall continue as between the said two Councils, and the provisions of this scheme shall, as regards those two Councils, have effect, as if the name of the retiring Council was omitted from the scheme, and as if for the word "36" in Clause (2) there were substituted the word "24," and as if for the word "twelve" in the same Clause there were substituted the word "ten" and as if for the words "one-third" in Clause (3) there were substituted the words "one-half";

Provided also that there shall always be at least one woman upon the Agricultural Council.

(11) The first meeting of the Agricultural Council shall be convened by a notice signed by the Clerks of the said County Councils, and shall be held on a day to be fixed by them.

II.—AGREEMENT BETWEEN THE COUNTY COUNCILS.

This Indenture, made the first day of March, 1903, between the County Council of the East Riding of Yorkshire of the first part; the County Council of the North Riding of Yorkshire of the second part; and the County Council of the West Riding of Yorkshire of the third part.

Whereas by Section 81 of the Local Government Act, 1888, it is, *inter alia*, enacted that any County Councils may from time to time join in appointing out of their respective bodies a Joint Committee for any purpose in respect of which they are jointly interested, and may from time to time delegate to the Committee any power other than the power of making a rate or borrowing money which any such Council may exercise for the purpose for which such Committee is appointed;

And whereas by Section 17 of the Education Act, 1902, it is enacted that any Council having powers under such Act shall establish an Education Committee or Education Committees in accordance with a Scheme made by the Council and approved by the Board of Education, and by Sub-Section (5) of the same Section it is further provided that any such scheme may provide for a Joint Committee for any area formed by a combination of counties, boroughs or urban districts or parts thereof;

And whereas by an Indenture of Lease bearing date the 15th day of December, 1898, made between Frederick Charles Trench Gascoigne and Frederick Richard Thomas Trench Gascoigne (thereinafter referred to as the lessors) of the one part, and the County Council of the West Riding of Yorkshire, the County Council of the East Riding of Yorkshire and the East and West Riding Joint Committee for Instruction in Agriculture (thereinafter referred to as the lessees) of the other part, a certain messuage or farm house and certain pieces of land situate in the parishes of Barwick-in-Elmet, Aberford and Garforth, in the county of York, known as Garforth Manor Farm (being the messuage and land hereinafter referred to), more particularly described in the Schedule to the now reciting lease, were demised unto the lessees from the 6th day of April, 1898, for the term of 30 years, at a yearly rent of £433 14s. 6d., subject to the covenants and conditions of the said Indenture of Lease contained and on the part of the lessees being observed and performed; and whereas by an Indenture of Lease bearing date the 23rd day of February, 1900, made between the said F. C. T. Gascoigne and F. R. T. T. Gascoigne, thereinafter called the lessors of the first part, the said County Council of the West Riding of Yorkshire and the County Council of the East

Riding of Yorkshire of the second part, and the East and West Riding Joint Committee for Instruction in Agriculture thereinafter called the lessees of the third part, a plot of land containing 4,840 square yards, being part of the land comprised in the said firstly recited Indenture, was demised to the lessees for the term of 99 years from the 25th day of March, 1899, at the rent and subject to the terms and conditions set forth in the Indenture now in recital;

And whereas the several parties hereto (hereinafter referred to as the said Councils) are desirous of concurring with each other for the purpose and in manner hereinafter appearing;

Now this Indenture witnesseth that in consideration of the several covenants and agreements mutually entered into by the parties hereto, each of the said Councils doth hereby severally covenant and agree with the others as hereinafter appears.

(1) The said Councils shall join in establishing a Joint Education Committee pursuant to the Education Act, 1902, for the purpose of carrying out the powers and duties of the said Councils under such Act in reference to education (other than elementary) in agriculture and matters pertaining thereto, subject as hereinafter provided.

(2) The Joint Education Committee so to be established shall consist of twelve members of the County Council of the East Riding of Yorkshire, twelve members of the County Council of the North Riding of Yorkshire and twelve members of the County Council of the West Riding of Yorkshire, herein referred to as "representative members" and other persons herein referred to as "added members," and shall be called "The Yorkshire Council for Agricultural Education," and such body is hereafter referred to as "The Agricultural Council."

(3) The persons so to be appointed as "representative members" shall be a Joint Committee under the provisions of Section 81 of the Local Government Act, 1888, and there shall be delegated, and each of the said Councils doth hereby delegate to the same Joint Committee all the powers of such Council under Section 17 of the Education Act, 1902, in reference to the making of a scheme for establishing a Joint Education Committee, and to the appointing of the members of such Joint Education Committee.

(4) Subject as hereinafter provided, there shall be delegated to the Agricultural Council, when and so soon as the same shall be appointed, all the powers of the said Councils respectively under the Education Act, 1902, in reference to education (higher than elementary) in agriculture and matters pertaining thereto, other

than the power of raising a rate or borrowing money, provided as follows :—

(*a*) The Agricultural Council shall not undertake any liability or expenditure unless the said Councils, or if only one or two of them would be affected by the proposed expenditure, then the Council or Councils affected, shall have previously sanctioned such expenditure, and no expenditure shall be sanctioned by any County Council until after report of their Education Committee;

(*b*) All moneys required to meet expenditure approved by the said Councils shall be paid to the Agricultural Council or as they shall by resolution direct in convenient instalments in advance;

(*c*) Nothing hereinbefore contained shall prevent any of the County Councils from supplying or aiding the supply of education in agriculture higher than elementary, if in their opinion local circumstances render it desirable.

(5) Each Council shall pay such part of the current expenditure as the Agricultural Council shall determine to have been incurred specially on behalf of that Council, and the residue of such expenditure and all capital money expended after 31st March, 1902, shall be defrayed by such Councils in the following proportions, unless and until they shall otherwise agree, that is to say:—the East Riding County Council shall pay 25 per cent., the North Riding County Council 30 per cent. and the West Riding County Council 45 per cent. of such expenditure.

(6) Whereas the capital moneys required in erecting and equipping the buildings upon the land comprised in the secondly hereinbefore recited Indenture have been provided by the Councils of the East and West Ridings in the proportion of four-ninths by the said East Riding County Council and five-ninths by the said West Riding County Council, it is agreed that the North Riding County Council shall, during the residue of the term of the said secondly recited lease, pay to the Councils of the East and West Ridings an annual sum of £44 by way of interest in respect of expenditure incurred by them on capital account up to the 31st day of March, 1902, and four-ninths of such sum of £44 shall be paid to the Council of the East Riding and five-ninths thereof to the Council of the West Riding.

(7) Any of the said Councils may withdraw from the combination hereby agreed upon on the 31st day of March in any year upon giving not less than twelve months' previous notice in writing of their intention so to do, and upon such withdrawal taking effect the representatives of the withdrawing Council shall cease to be members of the Joint Education Committee and the Agricultural Council respectively, but such last-mentioned Committee and

Council respectively shall, notwithstanding such withdrawal, continue in office and shall be constituted of the remaining members; and the combination between the remaining County Councils shall continue subject to the terms of this agreement, unless such Councils or one of them shall, within three calendar months after the receipt of such notice from a retiring Council, signify in writing their desire to withdraw from the combination at the date specified in the first-mentioned notice.

(8) Upon the withdrawal of a single Council, the sums payable by the continuing County Councils under Clause (5) shall be proportionally increased so as to make up the amount theretofore payable by the withdrawing County Council.

(9) Upon the withdrawal of any Council, or upon the termination of the combination hereby agreed upon, an adjustment of the property, debts and liabilities and any other necessary matters shall be made between the several parties hereto, and in default of agreement such adjustment shall, at the instance of any of the parties hereto, be referred to and decided by a single arbitrator to be agreed between the parties, or in default of agreement to be appointed by the President for the time being of the Local Government Board, and the decision of the arbitrator shall be binding upon the parties. Every reference shall be deemed a submission within the meaning of the Arbitration Act, 1889, and the Acts amending the same.

(10) For the more effectual carrying out of the objects aforesaid each of the said Councils will do all such further acts or things as may be necessary.

(11) The Agricultural Council shall in their accounts distinguish between capital expenditure and other expenditure, and shall in their accounts state such particulars as shall be necessary to show the financial position of each Council, and shall from time to time furnish the several Councils, through their Education Committees, with such statements and particulars as they may severally require.

VI.—MISCELLANEA.

A NATIONAL SYSTEM OF SCHOOL CERTIFICATES.

(1) INITIAL ACTION OF EDUCATIONAL BODIES.

The following letter, issued on the 1st June, 1904, by the Secretary of the Consultative Committee to the Board of Education, embodies an account of the procedure that led up to the full consideration of the question of school certificates by that Committee and to the production of their definite proposals published on pp. 520-4. Reference is made to the question in the Editorial Notes.

I am directed by the Consultative Committee to forward the following statement in answer to the Board's reference of 20th March, 1902. The Committee think it may be well to give a short account of what has taken place in connection with that reference.

Towards the end of 1901 the Board of Education received a letter from the General Medical Council, forwarding a Memorial addressed to that Council by the Head-Masters' Conference. The Memorial had also been sent to—the Pharmaceutical Society, the Incorporated Law Society, the Royal Institute of British Architects, the Institution of Civil Engineers, the Institute of Actuaries, the Institute of Chartered Accountants, the Society of Accountants.

Its object was to draw attention to the grave inconvenience and waste of time caused by the multiplicity of examinations for entrance into professions. It pointed out that five of the bodies named held examinations of this kind themselves, which, although substantially identical in standard, were altogether diverse in the details of their requirements. The effects of this diversity were very serious, not only to schools, by rendering it impossible for boys working for the different examinations to be taught together, but also to the education of the boys preparing for the examinations, by depriving them of regular class instruction during their preparation. It was also observed that although these five bodies, as well as the others which do not examine, publish lists of examining bodies whose certificates they accept, the relief given was very partial, as no two lists were the same.

The Head-Masters' Conference suggested the institution of a single examination, to be held at centres three times a year; also

that, if possible, a list of equivalents to this examination should be arranged for, to be adopted in common by all the bodies. They proposed that a Conference should be held between representatives of the Councils concerned, of the universities, the Board of Education, the Head-Masters' Conference and the Incorporated Association of Head-Masters, for the purpose of devising a scheme to put their suggestions into effect.

The Board referred the correspondence to the Consultative Committee for their advice. Some specific questions in relation to the reference were framed by the Board, and the Committee were asked to answer them. On an examination of the matter, after collecting the necessary information, the Committee found that it was impossible for them to answer the Board's questions in a really satisfactory way without formulating their views on the best method of testing the instruction given in a secondary school, as it appeared to them that this was at the root of the whole subject. On this account it appeared to the Committee that the first step required was to ascertain the general attitude of those whom a change in the present system would chiefly affect, namely, the universities and the teaching profession, as well as that of professional bodies concerned. The Committee, therefore, suggested that the reference originally made to them might be extended so as to include the general question. The Board, after conferring with the Committee, authorised them to make all necessary inquiries. The Board promised to give their careful consideration to any scheme which might be drawn up as a result, only stipulating that it should be clearly understood and explained that they did not engage themselves to take any action, if action on their part was proposed, and must not be regarded as committed to an endorsement of any proposals made by the Committee. Although sympathising in the desire of the Committee to reduce the number of examinations, the Board were obliged to view the question not on its own merits alone but in connection with the whole of their educational policy.

Under the Board's sanction the three undermentioned conferences were arranged and held by the Committee during the year 1903:—

(1) On the 8th and 9th May with representatives of the following Universities: — Birmingham, Cambridge, Durham, London, Oxford, Victoria:

(2) On the 2nd July with representatives of the following associations of teachers:—Head-Masters' Conference, Association of Head-Masters, Association of Head-Mistresses:

(3) On the 4th December with representatives of the following professional bodies:—Society of Accountants, Institute of Actuaries,

Royal Institute of British Architects, Institute of Bankers, Institute of Chemistry, Institutions of Civil, Electrical and Mechanical Engineers, General Medical Council, Pharmaceutical Society. A representative from the War Office and one from the Civil Service Commission also attended this conference.

At these conferences a provisional scheme for the institution of school certificate examinations, which had been drawn up by the Committee, was used as a basis of discussion. The views expressed at the first conference gave ground for making certain modifications in this scheme; the modified scheme was discussed at the two last conferences without alteration.

Two more conferences of a similar character were held in the early part of the present year: on the 25th of February with representatives of

(4) the College of Preceptors, and (5) the Private Schools Association.

The Committee have also had the advantage of hearing the evidence of Mr. J. Struthers, of the Scotch Education Department, who gave them some interesting information relating to the working of the leaving certificate system of the Department.

After careful consideration of the opinions expressed at these conferences and of the present circumstances of secondary schools in the country, they have drawn up the annexed scheme containing proposals for a system of school certificates for England. In framing the proposals due consideration has been given to the position of the various bodies by which the work of examination is now carried on, both in relation to the present and to the future.

The Committee have considered a very large number of minor points on which they do not here report, as they believe that a broad outline of their proposals not too much cumbered with details is, for the present at any rate, what is required. They submit these proposals in the confident belief that the adoption of the plan suggested would result in very substantial benefits to secondary and higher education in this country.

(2) PROPOSALS OF THE CONSULTATIVE COMMITTEE OF THE BOARD OF EDUCATION.

The Consultative Committee are of opinion :—

General.

(1) That, with the object of diminishing the multiplicity of examinations affecting secondary schools, and of providing a test of adequate general education which may be widely accepted, a general system of school certificates is desirable.

The well-known term "leaving certificate" has been purposely avoided because it is to some extent misleading and is not unfrequently misunderstood.

(2) That it is not desirable that examinations for such certificates should be conducted by means of papers set for the whole country from a single central organisation.

This clause must be read together with clause (6). It will be found that it is not the intention of these proposals to ignore the influence of the State in the supervision of a general system of examinations. On the other hand, it is important to prevent the evils which would almost certainly arise from the State having the sole responsibility in the matter. The desirability of bringing the examining body into closer relation with the teacher being recognised, it is obvious that, in dealing with a population of more than 30,000,000 and a large number and great variety of schools, this object can only be effectively attained by the establishment of more than one examining body. The success of the Scottish and Welsh systems seems to be largely due to the limited number of schools with which they have to deal.

Organisation of Examinations.

(3) That such examinations should be controlled by a recognised examining body, which should be either (1) a university, or (2) a combination of universities, or (3) an Examination Board representative of a university or universities and of the Local Authorities which are prepared to co-operate with them. It is desirable that, whatever the examining body may be, teachers of schools should, where possible, be represented, and with regard to (3), that every such Board should contain a large academic element.

The proposal to form in some cases Boards representing Local Authorities and teachers in the schools as well as universities may afford an opportunity for making an important new departure. Those Local Authorities especially which aid the schools and may perhaps pay the examination fees may be glad to be associated with a neighbouring university. There is further a growing body of public opinion in favour of associating the teachers in the schools with duties of this kind.

No general rule can be laid down requiring a school to be examined by a particular examining body. It may often be desirable that a school should be examined by the university or Board of the district in which it is situate. On the other hand, a school may prefer to preserve or to create a connection with one of the Universities of Oxford, Cambridge or London. It is recognised that it would not be desirable, if it were possible, to disregard the non-local character of these universities, or the position which their examinations occupy all over the country. The proposals are based on the assumption that it will ultimately be best for the secondary schools which are maintained or largely aided by Local Authorities to look to provincial examining bodies for the organisation of their examinations, and it is not improbable that Local Authorities may prefer their doing so; but in any case there will be a period of transition during which the new system and the existing university examinations will run side by side for all classes of schools, and the higher secondary schools will doubtless always retain complete liberty in the choice of their examining body.

(4) That recognition of these examining bodies should mean recognition by the Board of Education, acting on the advice of the Consultative Committee.

(5) That the following conditions should be required from schools which present candidates for school certificates:—

(*a*) Periodical inspection—whether this inspection be conducted by officers of the Board of Education, or by a university or other organisation recognised under Section 3 of the Board of Education Act, 1899, the report of the inspection should be communicated to the examining body; (*b*) the communication of the course of studies pursued in the school to the examining body.

That an examining body should be at liberty to decline to examine a school if the result of the inspection has not been, in their opinion, satisfactory, or if the course of studies is such as they are not able to approve.

It is considered that in this connection inspection and examination should be treated as complementary one to the other. Inspection is required, in the first place, to enable the examining body to judge whether a school is fitted to be admitted to the benefits of the system; but it is also required to enable the examiners to understand the aims and characters of the different schools, and so, on the one hand, to prevent the examination from becoming mechanical and rigid, and on the other to check any tendency in the school to direct its efforts too exclusively to success in the examination.

Means for preserving Uniformity of Standard.

(6) That a Central Board should be established for England (excluding, for the present, Wales and Monmouth), consisting of representatives from the Board of Education and from the different examining bodies, whose duty should be to co-ordinate and control the standards of these examinations, to secure the interchangeability of certificates, and to consider and, as far as possible, to adjust the relations of the examining bodies and their spheres of external action.

Although absolute identity of standard between examinations conducted by different bodies and in different places may be an impossible ideal, practical equivalence can probably be secured. Further, more than one combination of subjects may be held to represent a good general education. It will be the duty of the Central Board to see that a sufficient minimum standard is maintained in each subject, so that certificates including these subjects, wherever given, may possess a generally recognised and interchangeable value, and further, that these certificates represent in each case a good general education.

(7) That the Board of Education should constitute this Central Board, as soon as, in their opinion, a sufficient number of recognised examining bodies have signified their willingness to be represented thereupon, and should take all steps that may be necessary to procure the acceptance of the certificates by the professional bodies.

Conduct and Method of Examination.

(8) That since an examination held with the co-operation of the school in which a scholar has been taught is more likely to lead to a just estimate of the knowledge which he possesses than one held entirely by an outside body, the examination should be conducted in each school by external and internal examiners representing respectively the examining body and the school staff.

(9) That the course of the work pursued by a scholar during his school career should be recorded and reported on by his teachers, and that this school record and report should be available for reference in deciding his fitness or unfitness to obtain a certificate.

The suggestion here is that an examiner, in any case in which he desires to do so, should be able to judge of the character of a candidate's school career. The school records and reports need not be of uniform pattern. What is required is that such materials shall be accessible as will enable an examiner to judge whether the scholar's school career has been satisfactory or not. These materials will include, at the least, the curriculum of all the classes which a candidate has attended, a note of the time he spent in each, and periodical reports of his industry, regularity and progress.

(10) That the head-master or head-mistress of the school should certify that the candidate has received instruction during the necessary period, and is, in his or her opinion, fit to enter for the examination.

(11) That the external examiner or examiners should have control of the examination, and should have a veto on the passing of any candidate.

(12) That the papers should be set by the external examiner, after consultation with the internal examiner.

This consultation does not necessarily involve a series of personal interviews previous to the examination. Full information as to the courses of study pursued by the candidate would, in the first instance, be supplied to the examining body for the information of the external examiner. The books read, whether in English, classical or foreign literature, and the courses of history or geography studied, the practical work done, etc., would thus be reported. The internal examiner, also, would suggest series of questions, or indicate points upon which, in his opinion, questions should be set; and, in general, the two examiners would correspond on the subject-matter of the examination paper. The paper should, however, be finally made up by the external examiner on his own responsibility.

(13) That the allocation of work in reading and marking papers should be determined by the examining body, provided that papers which are near the minimum pass mark should be considered by both examiners.

(14) That oral and practical examinations should be conducted by the external and internal examiners acting in concert, who should, subject to section 11, jointly assess the mark for each candidate in this part of any examination.

(15) That in language examinations no special books should be prescribed, but that passages should be included from the books used in the school as well as unseen passages. That an oral examination should always be held in the case of modern languages.

Nature of Certificates.

(16) That there should be a senior certificate for pupils who have received not less than four years' instruction in a school or schools accepted for examination under section (5).

That there should be a junior certificate limited to pupils under 16 years of age who have received not less than three years' instruction in a school or schools accepted for examination under section (5).

With reference to the number of years of instruction required, it will be desirable at first to give some latitude to the Central Board.

(17) That no certificates for honours or marks for special distinction should be given, but that it should be open to the examiners to recommend the award of scholarships within a school or group of schools, when called upon to do so.

Special Provision.

(18) That scholars who are in a school which, in the opinion of the Board of Education, is unable to conform to these regulations, might be allowed to enter for the examinations under special regulations approved by the Central Board.

SCHEMES FOR HIGHER EDUCATION IN THE DISTRICTS OF COUNTIES.

(1) THE ALLOCATION OF COUNTY GRANTS TO DISTRICT COMMITTEES IN SHROPSHIRE.*

The Present System.

In order to extend the benefits of technical instruction over as wide an area in Shropshire as possible, it has been hitherto the custom to allocate the money available for lectures and classes to various rural and urban districts in certain proportions calculated partly on rateable value and partly on population. This procedure has now been adopted sufficiently long to permit it to be seen how far the results of such allocation have been in accordance with the objects for which they were made.

It is evident from a study of the Table of Grants and Expenditure for the past three years, printed on p. 527, that the rural and semi-rural districts have not been able to expend the grants allocated to them, whilst the urban districts have been compelled to ask for further grants in order to carry out the work undertaken within their areas. In the allocation of grants, usually made in September, the various urban districts have been accustomed to ask the Committee to sanction schemes of work which would obviously cost more than their share of the grants. When such schemes are sanctioned, the warning is always given that the Higher Education Committee does not consider itself responsible for any expenditure in excess of the legitimate grant; nevertheless later on in the year it has been the custom, after further applications and in view of the work accomplished, to transfer some of the unexpended rural grant to the urban districts. This action has often caused dissatisfaction in the rural districts, and has been a source of trouble and friction in other ways. It seems advisable, therefore, that this Committee should, if possible, formulate some scheme by which adequate assistance is given to work carried on at various centres, but it should be understood that the sum allocated is the utmost which the Committee grant, and that no responsibility will be assumed for expenditure beyond the sum thus allowed.

Such a plan can be more easily adopted now since the passing of the Act of 1902, which has given to urban districts the power to rate themselves, to the extent of one penny in the pound of their rateable value, to aid the work of higher education in their

* The scheme embodied in this article was considered and passed by the County Council of Salop on the 23rd July, 1904.

districts. The money raised in this way is available not only for science and art classes and technical instruction generally but also for all forms of secondary education. The Board of Education have recently circularised local bodies urging them to avail themselves of this privilege.

The System Adopted in Other Counties.

Many County Authorities insist that, as the condition upon which work is aided, Local Committees should raise a sum, either by rate or in other ways, equal to that obtained from the County Authorities. This plan is adopted in Staffordshire with satisfactory results. A similar plan is adopted in Worcestershire. In the East Riding of Yorkshire, a contribution is asked from local sources, to which the Education Authority make a grant in aid which takes the form of a capitation fee of £1 for each student attending the classes.

The alternative plan adopted by other County Councils is to require a careful estimate of income and expenditure, and to make a grant to cover the cost of the classes.

The Suggested Scheme.

On the whole, the plan which seems to possess the greatest advantage is that in which local effort is called in to provide a portion of the expenditure. It has the advantage of providing a check on expenditure in classes which are serving no useful purpose, and gives the Local Committee an interest in thus controlling the cost of classes which cannot be felt in the same degree when the whole expenses are met by the County Authority.

URBAN DISTRICTS.—It is recommended, therefore, that Local Committees in urban districts be informed that the County Education Authority is prepared to make them a grant in aid of higher education in their districts, provided that the sum so allocated does not exceed the amount derivable from a rate of one penny in the pound of the rateable value of such district, and on condition that they undertake to raise, either by rate or in other ways, a sum equal to that granted by the Authority. In order to lighten the burden on the Local Committees, the County Authority will regard the grant received from the Board of Education in respect of their district science and art classes as part of the local contribution referred to. It is also proposed to make a grant of £1 per head to Urban Committees for each student from a rural district attending classes in an urban district.

RURAL DISTRICTS.—With regard to rural districts, the Committee will be prepared to consider applications for evening (continuation) schools where, by a good attendance of pupils, it can be shown

that there is likely to be some return for the expenditure. In such cases the Committee will pay all expenses, but reserve the right to discontinue a class where the work or attendance is deemed unsatisfactory.

COMPARISON OF TOTAL GRANTS AND EXPENDITURE IN THE URBAN, SEMI-RURAL AND RURAL DISTRICTS OF SHROPSHIRE FOR THE THREE YEARS 1901-4.

District.		Total County Grant.		Total Expenditure.	
Urban.	Semi-Rural and Rural.	Urban Districts.	Other Districts.	Urban Districts.	Other Districts.
		£	£	£	£
...	Atcham	...	1,324	...	382
Bridgnorth* ...	...	154	...	365	...
...	Bridgnorth*	...	290	...	126
...	Chirbury	...	207	...	18
...	Church Stretton ...	...	357	...	39
...	Cleobury Mortimer .	...	306	...	217
...	Clun	...	549	...	65
...	Drayton	...	736	...	276
...	Ellesmere	...	592	...	...
Ludlow	...	284	...	341	...
...	Ludlow	...	686	...	379
...	Madeley	...	1,034	...	1,131
...	Newport	...	530	...	273
Oakengates	...	599	...	560	...
Oswestry	...	487	...	934	...
...	Oswestry	...	851	...	121
...	Shifnal	...	326	...	205
Shrewsbury ...	...	1,398	...	2,115	...
Wellington	...	576	...	916	...
...	Wellington	...	294	...	227
...	Wem	...	592	...	169
...	Whitchurch	...	402	...	282
	Totals..... £	3,498	9,076	5,231	3,910

(2) GENERAL FINANCIAL ARRANGEMENTS IN URBAN DISTRICTS IN ESSEX.

The following proposals on questions of finance and other arrangements in connection with the organisation of higher education in the four chief districts in the metropolitan area (viz., Leyton, Walthamstow, East Ham and Ilford) were drawn up by

* The grants in this case are for *two* years only, the district having been divided into "urban" and "rural" after 1901.

a Special Committee of the Schemes, Scholarships and Inspection Sub-Committee, and were passed by the Essex Education Committee on the 25th July, 1904:—

(1) An arrangement be made with each District Council for raising, under Section 3 of the Education Act, 1902, of a yearly rate of one penny in the pound, nine-tenths of the sum so provided to be handed over to the County Committee to be spent on higher education within the district in which the levy is made, the remaining tenth to be retained by the Local Council and expended on scholarships for children from the various public elementary schools, to be held at the public secondary school or schools of the area.

A moiety of such rate to be levied half-yearly and paid to the County Committee at the close of each half-year, the first rate to be in respect of the half-year ending 31st March, 1905.

(2) The portion of "whiskey money" annually available and allocated by the Committee for the work of local schemes for higher education in the various districts of the county to be divided according to the rateable values of the districts as ascertained by the latest county rate basis, and in respect of each of the metropolitan districts within the scope of this inquiry the sum thereby indicated to be credited to the respective district accounts.

(3) Any general county higher education rate levied in each district to be likewise credited thereto.

(4) Grants earned, fees and other income received to be credited to the district earning the same.

(5) In respect to the education of students living within the county but outside the district in which they are educated, the net average annual cost of education of such students to be charged against the district of residence and credited to the fund of the district of education.

(6) For each of the said districts the total of the sums above specified do constitute the "higher education fund" for the district, and no further expenditure be undertaken in any year other than that which can be so defrayed, except after due notice to the Urban Council of the districts, and that such excess expenditure be defrayed by means of a special rate levied on the said district.

(7) In respect of any new buildings required, it is preferable (in order to secure continued and active local interest) for the Council of the district concerned to build the school or addition thereto by means of a loan raised on the security of the local rate, the County Council guaranteeing repayment of principal and interest in accordance with the system of finance indicated above.

ORCHESTRAL CLASSES IN SCHOOLS.

AN EXAMPLE IN SHEFFIELD.

By John Ibbotson, Head Master, St. Matthias Day School, Sheffield.

The very laudable anxiety to discover the excellencies of American and various Continental systems of education has absorbed so much attention that what are matters of daily occurrence in the schools of our own land may escape notice. Much that is done in the schools passes unrecognised or leaks out, as it were, by accident. The columns of a London daily paper recently stated that one music firm alone claimed to have supplied over 50,000 violins to children in something like 1,100 different schools of the country, and that the numbers were daily increasing by leaps and bounds; as this particular firm possesses no monopoly, it may be supposed that many violins have also been supplied by other firms. Well might this statement occasion some astonishment, but the surprising part lies not only in the fact, startling in importance though it is, but also in the possibility of this being done unknown, as it were, to the public, or without even the recognised authorities realising the proportions of this new movement.

This extensive development must be very gratifying to the one to whose enthusiasm and personal initiation the movement owes its origin. That he was only anticipating a demand is self-evident. Education Acts may be passed by Parliament; Education Authorities may do their best to carry them out; education officials, local and central, may devise schemes more or less perfect for both elementary and secondary education; but if the earnest enthusiasm and individualism of the teacher be not secured how little good will be effected! Without this individuality and freedom of thought and action, the best laid educational schemes will fail, or fall short of their purposes.

This latest phase of school music had its origin in Maidstone several years ago, and all honour to the business capacity and foresight of any English firm which could seize so readily the opportunity offered of meeting and stimulating the demand for musical instruments.

To Sheffield has been left the development of the Maidstone commencement and the showing of some of the further possibilities of these instrumental classes. And what more fitting place could

have been found than the South Yorkshire city of smoke notoriety and musical fame? The city which has given to the world its finest chorus trainer and the magnificent festival choruses of the past few years, and which has so recently electrified musical circles in London with perhaps some of the finest choral singing ever heard by human ears, might be expected to set up for itself a high standard even in school music.

Do we fully realise what has been the musical progress of the past 30 years? It has grown with us; the evidences in the places of worship, the home circle, the concert room, the public park, etc., are too near at hand for us to obtain a true perspective. We should be able to observe them from the vantage ground of the past in order to estimate them aright.

How much of this must be placed to the credit of the elementary schools of the country? While none can rightly apportion this, few will dare to deny their claim to a large share of it. At least four, and perhaps five or six, school generations have been brought under the refining influence of music. The soil has been prepared, the musical seed sown and much has taken root and thriven. Under other hands, perhaps, it has been cultivated, and is now commencing to yield its fruit.

While much has been done, much still remains for accomplishment. Up to the present a very modest scheme of vocal music under the name of "singing" has been all that the Board of Education have set forth for secondary and elementary day schools and evening schools; but the time should not be far distant when we may hope to see this extended to "music," including instrumental music.

Drum and fife bands have often been heard of in the past in connection with schools, and, coming more nearly to the present times, facilities for pianoforte teaching have been afforded in elementary schools; but, until the present violin movement, there has not been any organised attempt to bring instrumental music within the reach of the bulk of the children.

As might be expected, there has been some opposition, and it may be well to state at least a few of the advantages claimed for instrumental over vocal music only:—it is supplementary and complementary to the vocal work; it affords opportunity for some musical education for those who may possess no voice; it necessitates the learning of the staff notation; it may, and will, in many cases, afford pleasure during a lifetime, since it offers greater opportunities for pleasure, proficiency and perhaps subsequent profit; and it opens up new and greatly extended possibilities for individual culture and social progress.

ORCHESTRAL CLASS, ST. MATTHIAS' SCHOOL, SHEFFIELD, ON "THE MAIDSTONE PLAN."

(*See page* 534.)

ORCHESTRAL CLASS, COLERAINE PARK COUNCIL SCHOOL, TOTTENHAM, ON "THE MAIDSTONE PLAN."

It is common knowledge that there are some five or more years, on the average, during which a boy's voice is useless, having "broken." In how few cases does it ever mend again? And even when good early tuition has been given to the boy soprano with the probability of an improved bass or tenor voice in later years, there must be a long period during which the boy is lying dormant musically. With the girl this change is less marked, and extends, perhaps, over a shorter period. Yet here there must be rest for physical development. How much better if the youth from 15 to 20 be cultivating the ear and the mind by the acquisition of a knowledge of the beauties and (*sotto voce*) the difficulties of the violin or some kindred instrument; this he will do if a right beginning be made in the day school. He will then be living in a musical atmosphere, which fact will count for much when singing is resumed. Without this environment, it usually happens that the individual remains in happy ignorance of the possession of a vocal organ worth cultivation. These, too, are usually the most fateful years of a whole life, and any movement which contains the possibilities of well using these years merits the support of all social reformers.

Although some may question the statement, and the contrary opinion is not infrequently held by many, there is surely greater probability of the *average* child attaining a fair degree of proficiency as an instrumentalist than for it to become a passable vocalist.

Objections raised by opponents of the instrumental class system may be mentioned, if only to indicate the extent to which they apply to the individual system advocated by such opponents. It is alleged that it is impossible to teach the violin to a class of children simultaneously, or, for that matter, to a class of adults, with any degree of success. Individual errors, it is contended, will escape detection, or, if detected, will not be prevented; that the teacher is often incompetent; that few of the children will ever rise above common mediocrity as players; that the livelihood of the professional player is being injured; that an excessive number of violinists will result. All class teaching, no matter in what subject, should at once be discontinued, if these critics be right, and an individual "coach" should be available for every child. Yet progress is more than maintained by the class system. Individual faults doubtless do creep in. It is not claimed for the system that it is perfect. Faults not infrequently pass uncorrected under individual tuition, or, at best, are challenged only at the weekly lesson, to recur during the week's private practice. It is not by the successes of a few clever pupils that the work of a class or school should be judged. If the average musical intelligence and

ability be increased, by just so much will the demand for further and more advanced instrumental tuition extend. The one will be in exact ratio with the other. No sensible music teacher settles in an unmusical district. He knows the supply creates the demand in his case. To add to the large number of unqualified and incompetent teachers of music would, indeed, be little short of calamitous, and it is high time a register of qualified teachers of this subject was obtained.* Opponents, however, fail to recognise that the school teacher has been taught to teach, and has been more or less compelled to acquire the ability to control large classes.

The St. Matthias Day School.

The following detailed account of the working of the Sheffield classes, to which reference has been made, may be interesting. In December, 1902, the usual quarterly reports, sent by post to all parents, contained the announcement that violin classes would commence in the then coming year 1903, and that those wishful to become members of the classes were to intimate their desire by a certain date. Some 70 to 80 favourable replies were received at once. Two classes weekly were arranged for at threepence per lesson, and the services of one of the very best Sheffield violinists secured — after some considerable hesitation on his part; for, although a violin teacher of much experience, this class tuition was entirely new to him, and the result problematical. Events have shown we were most fortunate in securing such able and painstaking services.

It was stipulated that suitable violins must be obtained from some source. A number already had instruments belonging to some member of the family, but the bulk were supplied through the school by Messrs. Murdoch and Co., respecting whose violins independent inquiries had been made. Experience has justified the satisfactory opinions obtained from professional experts.

After the first few early lessons, the class was divided into two sections. The elder children being more receptive and making more rapid progress, it became necessary for our instructor to provide himself with some assistance. Knowing the class of parents with whom we had to deal, and being well known to them through long connection with the school, we anticipated no difficulty

* It should be noted that the subject of music is the first in the list of subjects for which Supplemental Registers for teachers are to be established by the Teachers' Registration Council under the Regulations framed by the Consultative Committee of the Board of Education (see remarks in the Editorial Notes.—[Editor.]

in the matter of payment for the violins on the instalment plan. These anticipations were thoroughly realised and the hearty co-operation of the parents obtained. The instruments could, therefore, be taken home, and more practice secured than would have been possible had it been necessary to detain them in school till payment was completed. They were brought back to school daily, for short practices after morning and afternoon school.

The class "Tutor" supplied for use in these classes through Messrs. Murdoch is admirably planned, with just the necessary amount of scale and study practice to carry the pupil forward while fully maintaining his interest.

In an incredibly short space of time it became possible to open and close school with the assistance of the violins, and no little pride was evinced by those leading the way in this matter. A careful selection of tune was at first necessary, but after some twelve months any ordinary hymn tune could be rendered respectably at sight. We should not now care to forego the pleasure of the morning hymn as played and sung with piano accompaniment.

Evening rehearsals were next introduced, these being held in the schoolroom twice a week from 6-30 to 7-30. Attendance was quite voluntary, but rarely was anyone absent, unless for urgent reasons. Some self-sacrifice was made in thus devoting extra time to the work, but, fortunately, we were able to give up this time with less inconvenience than might have been imagined, as other engagements were made to fit in with the rehearsals. A double or treble purpose has been served. Progress has been much more rapid: preparation for instrumental concerts has been rendered possible: but chiefly have these evening rehearsals been of value in keeping together the children who from time to time leave school for business. Not only is continued interest assured but good habits are being encouraged, and musical association with some orchestral society is only a work of time. The parents of every child leaving school are communicated with, and their assistance sought, and, so far, with most gratifying results.

We are quite prepared to extend our personal sympathies to anyone undergoing our early experiences. Often, only some five or ten minutes' actual playing took place during an hour's rehearsal, owing to tuning, breaking of strings, collapsing of bridges, etc. As soon as the children could be safely trusted to manipulate strings and pegs without undue danger of a wholesale breakage of the former, they were given A and taught to consider the E as soh in the key of A; while A was soh in the key of D; and, of course, D was soh in the key of G. Their sol-fa knowledge was thus early brought into use, and has continued of the greatest service to them at each stage.

There are always candidates waiting the formation of a new class for beginners, but it is found most convenient to admit new students only at the end of three or six months. Two sections are quite sufficient to occupy one's time and energy. Promotion from one division to the other is made at regular intervals, and industry rewarded; and, with this end in view, the whole classes are individually examined, and their strong and weak points carefully noted and recorded. It is wise to exercise careful supervision over the admission of pupils, and to this we attribute not only some of the success we have had so far, but also the fact that so few have fallen by the way. A few—some three or four only—were reluctantly allowed to join against our better judgment, in the hope that unsuspected talent might exist. One of these, a dunce in most other matters, has made capital progress, exhibiting, doubtless in consequence of increased self-esteem and greater confidence in his own powers, an equally satisfactory progress in general matters.

An "advanced class tutor" became necessary, and the want was met by our instructor, who carefully selected and edited useful and suitable excerpts from the best composers, in addition to including more advanced studies.

We have made three appearances before the public, each one being in the interests either of school or violin classes, and each successive performance showing evidence of distinct musical advancement. On these occasions, wind and other string instruments have been added, the children being thus made somewhat familiar with instruments other than the violin. Many and varied opinions have been expressed respecting the wisdom of allowing these youthful performers to appear at such an early stage, and, as usual, those who knew least about the children and their playing were loudest in condemnation of the practice. Those who have had any experience with an orchestral society will not need informing that incidentals in the way of music, music stands, etc., etc., are pretty considerable, and one way of helping to furnish the wherewithal was and is by providing Children's Orchestral Concerts.

As we have said already, we claim for these classes, not that they will supplant individual teaching, but that eventually they will be the means of creating additional demand for it, and, further, that the pupil will be all the more prepared to take full advantage of the expensive tuition which is quite beyond the means of many a parent. By the aid of our concert fund, we have been enabled to commence a small semi-private class, which, we hope, will in some degree take the place of individual teaching, or, at least, be another step toward this end. With this purpose in view, it was

arranged that a day in the Whitsuntide holidays should be set apart for examination. Every child in the senior division presented himself or herself for examination, when marks were given for position, bowing, tone, tune, etc. It was intended to select the best half-dozen, but as a tie for the sixth place occurred, this small semi-private class will, for the present quarter, consist of eight pupils—four girls and four boys. They will, together, pay half the usual private fee, and the other half will be furnished from the fund already named. Thus for 4s. each, they will receive the same advantages as the private pupil who pays two or three guineas. The same process will be repeated at the close of the quarter, when the unsuccessful will do their best to oust some of the present eight, who will thus need to work hard to retain their places within the charmed inner circle.

A very pleasing feature of the past winter's working of our classes has been the invitations extended to our children by the officials of two of our leading orchestral societies of Sheffield. By their kindness, some fifty or more have had the privilege of attending two first-class concerts free of charge, while at the same time obtaining an education which can only be gained in this manner. The earnest attention exhibited by the children was most pleasing, and no more interested critics were present in either audience.

Some Special Considerations.

Briefly summarised, some of the advantages of class tuition in schools, where it is properly given, lie in the sympathy of numbers, the spirit of emulation, the more regular practices and the careful supervision exercised during rehearsals. The weaker child receives the necessary sympathy and support of the stronger player, and is proportionately, although perhaps unconsciously, encouraged, instead of losing heart by discouraging individual home practice. It is in the lack of supervision, during these home practices of the private pupil, that he or she fails to reap the full advantage of even the very best tuition. How few parents think it necessary to superintend their children during their practising, and see that the teacher's instructions receive due attention, and how few parents possess the requisite knowledge or ability, even if they would afford the time necessary.

Many ideas suggest themselves for further development. The curriculum of the schools is already over-burdened. It is perhaps the wisest course, therefore, for the authorities to take no official cognisance of this violin movement, and to quietly permit it to exist wherever the teacher feels able and wishful to take

it up. Where introduced it seems necessary to extend the school day by so much; but as this mainly affects the older children it may be done without disadvantage. Our own lessons have been given from 4-15 to 5-15, or 5-30.

When instrumental music finds a place in the evening schools' curriculum, there would be ample scope for the viola and 'cello. A small class of teachers is already at work here with the 'cello, and under most able management.

Perhaps it is too much to expect some examining body to consider the advisability of issuing a school certificate, though the idea might be well worth bearing in mind. The ordinary examination fees of most of these authorities are prohibitive.

Reference has been made already to the 50,000 violinists, and as this army is not unlikely to contain some boy or girl of native genius, is it not worth while to make some attempt to unearth him or her? Who knows whether there are not embryo Kubeliks and Marie Halls only awaiting opportunities? A "Murdoch Scholarship," tenable at some musical centre, would in all probability effect this, and there would not be much trouble in the working of details.

If this movement tends *only* towards the creation of a race of violinists, it will have failed in its educational purpose. If it cultivates a love of music, if it improves musical taste and whets the musical appetite, the ultimate selection of the particular instrument may be left to the individual musical temperament of the youth. Even its greatest opponents must admit that few schemes have greater possibilities.

JOHN IBBOTSON.

VII.—REVIEW.

HIGHER EDUCATION IN RURAL COUNTIES.

REPORT AS TO A SCHEME IN OXFORDSHIRE.*

Introduction.

The existing facilities for higher education in Oxfordshire have recently been surveyed by special Commissioners, whose report has been under the consideration of a Special Committee appointed by the County Committee. The result of their deliberations is that they are unable to recommend the adoption of the proposals, mainly on the ground of expense, and this view has recently been accepted by the Education Committee. But the report will doubtless stand as a recognised basis for future action.

The report is mainly concerned with the development of the secondary schools and of a scholarship scheme in connection therewith, in view of the necessity for providing for the more efficient preliminary training of teachers. There is a great lack of efficient and suitable secondary school accommodation, especially for girls, some schools being inconveniently situated near the boundary of the county, and others equally available for pupils from adjoining counties. The county is more fortunate in regard to training college accommodation, the day colleges in the county boroughs of Oxford and Reading being available. The provision for technical instruction in the county will be allowed to remain practically as at present. It is organised on a very small scale, but has many excellent features; no considerable demand for it is anticipated, local industries having actually decreased since 1891. Agriculture is the only large industry. The population being sparse relatively to the administrative area (the former is only 137,124, and the latter 475,968 acres), the difficulties of preparing a satisfactory scheme of higher education are not decreased. It should be particularly noted that the benefits that would arise from the arrangement of a joint scheme with the administrative county and the county borough of Oxford are not overlooked, anything in the nature of rivalry between the respective authorities being much deprecated.

Secondary Schools.

PRIVATE SCHOOLS.—The Commissioners commence by suggesting the general lines of policy to be adopted towards these schools in the county scheme. They state, in effect, that good work is being done in private schools and excellent results are being obtained in many of them. For various reasons, however, such as the number and age of the pupils, the state of the buildings, the proximity of

* Report to the Education Committee of the Oxfordshire County Council on Higher Education, by C. W. Kimmins, M.A., D.Sc. (Chief Inspector to the Education Committee of the London County Council), H. W. C. Davis, M.A. (Fellow of Balliol College, Oxford) and Miss C. M. E. Burrows (Vice-Principal of St. Hilda's Hall, Oxford).

more efficient schools and other considerations, they cannot with advantage be utilised to any considerable extent for the attendance of County Council scholars. But by an attractive scholarship scheme for pupils in secondary schools much may be done to make a full use of this natural source of supply of elementary teachers, and to encourage the pupils to remain at private schools until the age at which they are eligible to compete for the scholarships. Every encouragement should be given to private schools to increase their efficiency and prepare candidates for scholarships which will enable successful competitors to enter the teaching profession under the most favourable conditions.

PROPOSALS FOR DEVELOPMENT.—The condition and position of 16 secondary schools are considered with a view to their utilisation in the county scheme. Of these schools, five are situated outside the administrative area, one being over the Berkshire border and the other four in the neighbouring county boroughs. Generally speaking, the buildings of the schools within the county are unsatisfactory in some or many particulars, but the attendance is very fair in proportion to the available accommodation. There are five mixed schools, at least one of which, at Banbury, has been very successfully carried on under the joint management of the Town Council and the County Education Committee for the co-education of boys and girls. There are also three schools exclusively devoted to the education of girls, and four private schools, three and two schools respectively working under Divisions A and B of the Board of Education's Regulations, and one first grade school (at Reading). It is suggested that all of the 16 schools, with possibly one exception, might be utilised as suitable places for the tenure of county scholarships, especially of those scholarships to be held by "intending pupil-teachers." Apart from the structural alterations and additions to the existing buildings, the cost of which is considered below, the chief proposals for the development of the schools include—the modification of the curriculum of Banbury Municipal School so as to include a domestic economy course for girls; the transference of the Burford Grammar School* to the County Council; the recognition, after suitable reorganisation, of Henley and Witney Grammar Schools as Division B schools; the placing upon a public basis of the old private Grammar School at Thame; and the conversion of Woodstock Grammar School into a higher elementary school. There are, however, alternatives suggested to a few of these proposals.

Apart from Oxford, there will still be left a large district without any suitable provision for secondary education where new schools will be required. This district extends from Chipping Norton on the west to Bicester on the east, the three most convenient centres therein for the establishment of schools being the two towns named as well as Steeple Aston. As regards Chipping Norton, it is considered that if a good mixed secondary school, with low fees, say, £6 a year, were established in the town, there would be no difficulty in attracting a constant supply of from 60 to 70 boys and girls from the borough and the surrounding district. It would be a very good centre for the Council's scholars, of whom 20 to 30 would be within easy reach of the school. An excellent site, with good playing fields, could be obtained at a very reasonable cost, and ample provision might be made for technical classes in the neighbourhood. As regards Steeple Aston and Bicester, there would not seem to be enough children requiring secondary education to warrant the establishment of secondary schools; higher elementary schools would, in each case, meet local requirements, and Banbury or Oxford would serve as the secondary education centres for both places, when the time for the transference of pupils arrived.

* A complete account of the work of this rural Grammar School was published in "The Record," October, 1900, pp. 396-406.

The County Borough of Oxford.—Arrangements should be made for a large number of girls and a few boys to receive their secondary education in this centre. The City Technical School, though well adapted for science and art classes, is not suitable for a secondary school, having already been condemned by the Board of Education. As a mixed school it has been fairly successful from an examination point of view. It would be well to promote a joint scheme with regard to increased secondary accommodation for boys and girls. The best arrangement would appear to be the completion of the Boys' High School buildings, with improved laboratory accommodation, and the establishment of a really good secondary school for girls, both schools to be under the control of the same Board of Governors; this would prevent competition between the county and the city. A liberal grant might be made towards the maintenance of the two schools in return for about 80 free places, say, 70 girls and 10 boys. Unless some joint scheme can be arranged, it would be necessary to provide a good secondary school in Oxford at reasonable fees. It is of the utmost importance that Oxford, which is the natural centre for a very large district, should be used as much as possible for boys and girls holding county scholarships for whom the various train services are available.

The Cost.—The total capital expenditure for carrying out the specific recommendations made for new buildings and additions to schools is estimated at about £15,000, and the increased maintenance for secondary education at £1,450 annually, these sums being allocated to the different centres as follow:—Chipping Norton, £6,000 and £500, respectively; Witney, £3,000 and £200; Burford, £500 and £300; Thame (for boys' and girls' schools), £4,000 and £250 (girls only); Henley, £1,500 and £200. These estimates would involve an annual charge of about £600 for capital purposes, making the total increased cost of secondary education in the county, excluding Steeple Aston, Bicester and Oxford, £2,050 a year.

The Supply and Instruction of Pupil-Teachers.

The Commissioners declare that advantage should not be taken of the permission given by the Board of Education's Regulations to employ teachers in elementary schools at the age of 15, not only from educational considerations but also from the great difficulty which would be experienced in providing a sufficient number of secondary schools with departments corresponding to the old pupil-teachers' centres within easy reach of suitable elementary schools. The best course to adopt is evidently to give as long a period as possible in the secondary school, and at the age of 16 to arrange for a continuous period of one year in the elementary school. The Commissioners lay much stress throughout upon the importance of encouraging local patriotism, or, as they technically designate it, "county feeling," among those undergoing training for the teaching profession. To this end it appears desirable not to use more than is absolutely necessary any secondary school outside the county, and to obtain the secondary teaching as near as possible to the homes of the children. Among the other chief considerations advocated, in order to promote the efficient training of candidates, are—the postponement of attendance at a secondary school until the age of 13; the preferment of Division B to that of A of the Board of Education's schemes for secondary schools, as by it there is scope to frame a more liberal curriculum and to give more attention to English and modern languages; the provision of a short training college course eventually for all teachers, and of special facilities for clever pupil-teachers to enable them to obtain a university degree or its equivalent, with the view of creating a source of supply of secondary

teachers; the participation in the county scholarship system of pupils from private as well as public schools in order to introduce an improved standing into the class of elementary teachers; the organisation of secondary schools of a reasonable size (*i.e.*, of at least 60 pupils, up to 100 or 150), with the view of not only economising but also of ensuring a proper differentiation of the teaching and a healthy competition in each Form; the avoidance of an undue proportion in the schools of "intending pupil-teachers" to the other pupils—the proportion to be secured should be about 25 per cent.; the arrangement, where possible, for teachers to attend a day training college whilst still living at home, although involving somewhat long journeys; the assistance by small scholarships of existing able teachers in order to complete their training, and to tide over the expected temporary shortage of teachers. It is estimated that an average grant of £10, in addition to the grants of the Board of Education, would enable a teacher to spend one year at a training college without difficulty.

The Scholarship Scheme.

The Commissioners offer some very practical suggestions as to the institution of a county scholarship scheme, with special reference to the training and instruction of pupil-teachers.

NUMBER OF SCHOLARS.—The total number of teachers required each year for the elementary schools will be about 54. For the first few years it may not be possible to obtain more than 14 children at the age of 16 direct from secondary schools under private or public management; it will, therefore, be necessary to provide 40 teachers by means of this scheme, starting with children at the age of 13 from the elementary schools, and to provide for a considerable wastage during the period from 13 to 18 years of age. Taking count of the loss of scholars from various reasons in counties where such schemes have been in operation, it will be well to start with 80 scholarships for the first year, 70 for the second, 60 for the third, 50 for the fourth and 40 for the fifth.

THE PROVISION OF BICYCLES.—For day scholars in secondary schools, in preference to the less desirable and more expensive method of awarding boarding scholarships, the provision of bicycles is recommended for county scholars who reside at a distance of more than two miles from the school. This would enable the child to attend a secondary school within a radius of six miles of his home in cases where it is not necessary to use the railway. The bicycle would remain the property of the Council, and would be returned at the expiration of the scholarship, unless it was held for the whole of the five years: in such cases teachers would probably be allowed to acquire permanent possession of them.

VALUE OF SCHOLARSHIPS.—The average award for the first year should not exceed £11, including fees, incidental expenses and the upkeep of bicycle. In the second year this should be increased to £16, and in the third year £25, as the child becomes more valuable to the parent for wage-earning purposes. During the period from 16 to 18 years of age the pupil-teacher will spend one year in a selected elementary school, and a charge should be made upon the elementary fund of, say, £40 to meet the entire cost incurred; a similar arrangement might be made for the next year also. The value of a scholarship would, of course, depend upon various considerations, such as the position of the parents, the distance of the child's home from the school and the scale of fees.

THE COST OF THE SCHEME.—The following statement shows that the total cost for the period from 13 to 18 when the scheme is in full working order would be £5,100:—age 13-14, 80 scholarships at £11, £880; 14-15, 70 at £16, £1,120; 15-16, 60 at £25, £1,500; 16-17, 50 at £—, £——; 17-18, 40 at £40, £1,600;

total £5,100. To this must be added the cost of secondary school scholarships, to attract pupils from public or private secondary schools, tenable for two years, of the value of £40 a year. As there may not be more than 14 such candidates from this source every year, and as half of the cost would be charged to the elementary fund, the total cost in this respect would be £560. Thus, the total cost for the training of 54 teachers up to the period at which they are qualified to enter a training college would be £5,660.

The sources of income available from Board of Education grants towards the cost of the preparation of teachers are (*a*) "local" science and art scholarships; (*b*) grants of £4 a child for each year from 14 to 16 years of age for preparatory classes, for which residence in a secondary school is considered equivalent; (*c*) grants of £6 a head for each year, payable to pupil-teacher centres, which, in the case of this scholarship scheme, will be special departments of secondary schools. These grants will also be available for the secondary school scholars who enter the scholarship scheme at the age of 16. The following statement shows that the total amount of the grants it is thus possible to obtain from the Board of Education for the instruction of children from 13 to 18 years of age is £2,638:—age 13-14; 80 "local" science and art scholarships at £4, £320; 14-15, 70 "local" science and art scholarships at £7, £490; 14-15, 70 grants for preparatory classes at £4, £280; 15-16, 60 "local" science and art scholarships at £10, £600; 15-16, 60 grants for preparatory classes at £4, £240; 16-17, 50 grants to pupil-teacher centre at £6, £300; 17-18, 40 grants to pupil-teacher centre at £6, £240; secondary school scholars—14 grants at pupil-teachers' centre (two years) at £12, £168; total, £2,638.

When the scheme is in full working the total cost to the Committee for the training of future teachers from 13 to 18 years of age will be about £3,000. Thus—cost of scholarship scheme, £5,660; less grants from Board of Education, £2,638; nett total, £3,022.

"LOCAL" SCHOLARSHIPS.—These are for competition among the pupils of elementary schools or pupils in the elementary course of a school conducted under Division A. With any group of students up to 100 on the register of the school or group of schools there can be but two such scholarships, and so on. To take full advantage of them it is, therefore, necessary that the scholars should be selected from as many elementary schools as possible. In view of the large number of elementary schools, there should be no difficulty in obtaining one of these scholarships in the case of each suitable candidate.

ORGANISING OFFICER.—To ensure the efficient working of this scheme an officer should be appointed, whose special work should be the selection of suitable children as possible teachers from the elementary schools. He would make the necessary arrangements with the parents or guardians, and would have the general control and supervision of the children through their period of instruction until they entered a suitable training college. He would also act as an inspector of secondary schools, and report on such questions as suitability of school, efficiency of staff and curriculum.

The Existing Scheme for Higher Education.

As to this it is unnecessary here to say much, except, perhaps, to record the general opinion of the Commissioners that the work has been carried on in recent years in a very able and economical manner. It may be well, however, to point out the portions of the scheme commended, or those which might be developed. Among the former are—the agricultural teaching conducted by the authorities of Reading College, the horticultural instruction for teachers, the exhibitions for

teachers to attend courses, and the junior and senior agricultural scholarships. As regards the latter, it is suggested that more attention should be given to the teaching of domestic science in evening and secondary schools, and that the system of science and art classes for the supplementary training of teachers, the analytical work of the chemical department of Reading College for the benefit of farmers and others engaged in agricultural pursuits, and the practical instruction on allotments given to boys in elementary schools should each be extended; also the curricula of evening schools should be brought to bear more directly upon the needs of particular districts.

Estimated Cost of Proposed County Scheme.

The total revenue available for higher education in Oxfordshire cannot be reckoned at more than about £10,000 a year. This sum would be made up equally of funds derived from the Local Taxation (Customs and Excise) Duties and a twopenny rate under Part II. of the Education Act. If the foregoing scheme was adopted in its entirety, excluding the proposals respecting Oxford, Steeple Aston and Bicester, the estimated expenditure would exceed this amount by at least £500, and would be made up as follows:—existing scheme of instruction, less £600 for reductions, £4 500; scholarships, including special officer, etc. £3,350; training of teachers, £500; increased maintenance grant to secondary schools, £1,450; interest on capital charges, £600; increased grant to Reading College, £100; total, £10,500 The only asset towards this excess of expenditure over income is a total accumulated fund of £3 289 7s. 11d. But the Commissioners state that before the scheme is in full working, it is more than probable that the Imperial grants for higher education will be materially increased.

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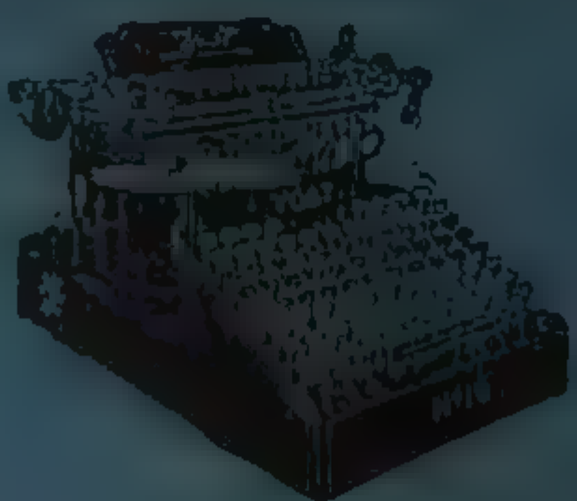

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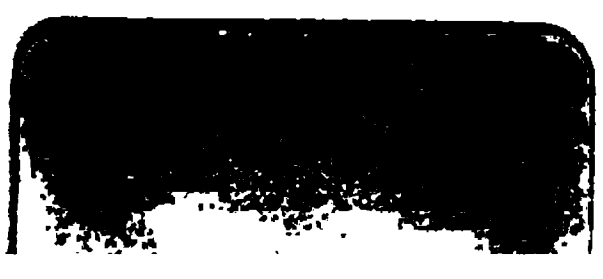
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